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**KNOWLEDGE PROTECTION IN INDIGENOUS COMMUNITIES:
THE CASE OF INDIGENOUS MEDICAL KNOWLEDGE SYSTEMS
IN ZIMBABWE**

By

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DEDICATION

**To my beloved son Anotida Magaisa,
Kuuya kwako kwakandipa rufaro netariro ***

**And my wife, Shamiso Magaisa,
Rudo neRubatsiro parwendo •**

* Your Arrival Gave me Hope and Happiness
• Love and Support throughout the journey

DECLARATION

I, Alex Tawanda Magaisa declare that this thesis is my own original work and that it has not been presented and will not be presented to any other University for a similar or any other degree award.

Signature

ABSTRACT

This study examines the contentious issues relating to the exploitation of indigenous knowledge systems (IKS) within the context of the expanding regime of intellectual property law (IP law). The study focuses specifically on the area of indigenous medical knowledge (IMK) within the geographical context of Zimbabwe as a country case study. The study examines the centrality of knowledge in the global economy and using international political economic theory and practice, demonstrates why it is a key site of struggles between and among nations and various stakeholders. While it considers the narrow issue of the applicability or otherwise of IP law to IKS, this study takes the approach that it is necessary to understand the socio-historical developments that account for the peripheral status of IKS in relation to the dominant western knowledge systems (WKS). A key argument of this study is that the lack of legal protection of IKS is directly connected to their marginal status in social, intellectual, cultural and economic terms arising from the dominance of the predominantly WKS. It is argued that far from being a narrow legalistic debate, the matter of the protection of IKS is a wider socio-cultural, economic and political issue that centres on the power relations between and among people, corporations and states. Through a combination of theoretical and field investigations, the study seeks to explore the factors that account for the marginalisation of IKS generally and IMK systems in particular. The “struggle thesis” demonstrates that from an historical viewpoint knowledge systems are in a state of constant interaction and struggle resulting in problems. The key to resolving the problems is to acknowledge difference and accept the legitimacy and validity of different knowledge systems and to democratise the regime of knowledge protection both nationally and globally. It proposes that solutions lie in not only reconstructing the legal architecture but also in ensuring that the social, economic and political structures are reconstructed to safeguard and nurture the IKS. The study investigates the needs and expectations of the indigenous communities including their rationale for the protection of their knowledge systems. Finally, it also contributes to the development of indigenous research methodologies.

ABBREVIATIONS

1. **CBD** – Convention on Biological Diversity
2. **IKS** – Indigenous Knowledge Systems
3. **ILO** – International Labour Organisation
4. **IMK** – Indigenous Medical Knowledge
5. **IMP** – Indigenous Medical Practitioner
6. **IP Law** – Intellectual Property Law
7. **IPR** – Intellectual Property Right
8. **UN** – United Nations
9. **UNESCO** – United Nations Education, Scientific and Cultural Organisation
10. **WIPO** – World Intellectual Property Organisation
11. **WKS** – Western Knowledge Systems
12. **WMS** – Western Medical System
13. **WSK** – Western Scientific Knowledge
14. **WTO** – World Trade Organisation

CHAPTER 1

INTRODUCTION

"I learned the science from my grandfather, who learned from his father, and so on, back to the creation of the world"¹

1.1 INTRODUCTION

The legal protection of indigenous knowledge systems (IKS) has become a major issue of discussion at national and international levels in recent years. This study focuses on an aspect of IKS namely, Indigenous Medical Knowledge systems (IMK). Geographically, the study is located in the region of Southern Africa with special reference to Zimbabwe. The growing profile of intellectual property law (IP law) both locally and globally has brought the subject of knowledge protection under increasing spotlight. While the pursuit of knowledge and mechanisms for protection of particular aspects of knowledge has a long history, the increasing focus on traditional forms of knowledge presents interesting challenges and questions that form the core of this study. This study takes the view that in attempting to explore ways of protecting these traditional forms of knowledge, a key line of enquiry is *why* the issue of rights to IKS has become such a critical question at both local and international law.

The centrality of knowledge in today's global economic system has given rise to what has been termed the "knowledge economy" in which the weight of global economic activity is shifting towards knowledge-oriented products and services (Ryan 1998). This is

enhanced by the growth of global technologies, which make it easier to store, retrieve, process and disseminate information and related products. According to Drahos, “Information is becoming “the prime resource” in modern economic life” (2000: 245). This has placed knowledge at the centre of economic claims and conflicts. Given that the pursuit of knowledge has always been an important factor in human development its growing centrality has exacerbated the old struggles pertaining to the ownership, use and distribution of knowledge at various levels. This study pursues these issues in respect of IMK, which is a component of IKS that are associated with Indigenous Peoples located in different parts of the world.

In recent times, there have been major developments at the global level that also confirm the growing centrality of knowledge in the economy (Sell 1998). The conclusion and adoption of the Agreement on Trade Related Issues of Intellectual Property Rights (TRIPS) under the World Trade Organisation (WTO) at Marrakech in April 1994 is evidence of such developments and is a major milestone in the growth of knowledge protection mechanisms. The TRIPS agreement is significant for establishing minimum standards for the protection of intellectual property rights (Blakeney 1996). It represents increasing efforts aimed at creating uniform standards for intellectual property protection. However, beyond this general picture of harmonised knowledge protection laws there are key contradictions and conflicts over the issue of knowledge protection in different parts of the world. This study demonstrates the view that far from being the “accepted” system of knowledge protection, it is an area that is characterised by conflicts particularly in

¹ Paulo Coelho, *The Alchemist* at 132. The statement reflects the essence of the type of knowledge that is at the core of this study.

respect of the IMK systems. This study will show that the conflicts are closely connected to the fact that knowledge is itself deeply contested terrain.

In addition to introducing the core areas of this study, this chapter also presents the contextual setting of the study by way of explaining key definitions of terms and concepts used throughout the thesis.

1.2 OBJECTIVES OF THE STUDY

The legal protection of knowledge systems in Sub-Saharan Africa is a field that has only recently received academic attention (Mugabe 1998). The problems affecting IKS have generally been explored within the context of the Asian-Pacific, North and Latin American indigenous communities with much of the work in African communities still in relative infancy. Although there is evidence of growing awareness and participation in Africa, there has not been much scholarly research in that field. This study is a contribution to that pursuit of knowledge with respect to the indigenous communities in Africa and for practical considerations, centres on Zimbabwe as a country case study.

The study focuses on the IMK system as a specific form of IKS that best illustrates the issues under investigation. The objective is to highlight the extent of the problems and to investigate the explanations for the problems facing Indigenous Peoples in respect of their IMK systems. The study further aims to suggest critical aspects that are necessary for purposes of alleviating the problems facing IMK systems and IKS generally. This

study is built on the premise that in order to find solutions, it is necessary to understand the origins of the problems. It demonstrates the idea that in discussing issues and seeking solutions history matters. Although the study focuses on Zimbabwe, arguably aspects of principle that emerge should be relevant and useful to the understanding of issues arising in other Sub-Saharan African countries and other geographical regions where similar issues arise.

1.3 KEYS ISSUES IN THE STUDY

Several issues arose from this study and this section briefly highlights certain key elements. The aspects highlighted in this section are explored and explained in greater detail in the body of this study. A key aspect emerging from this study is that the lack of legal protection of IMK systems is a product of historical marginalisation of that particular knowledge system both locally and globally. This marginalisation was carried through from the colonial to the post-colonial period and accounts for the gap in the protective mechanisms for the knowledge systems of the indigenous populations compared to, for instance the western-oriented knowledge systems.

Secondly, owing to this history of imbalance and marginalisation, the protection of IMK systems is likely to require more than legal mechanisms to include a fundamental overhaul of the systems within which the knowledge systems are located. Additionally, the contact between IMK systems and other systems of knowledge such as Western Scientific Knowledge (WSK) is an inevitable and irreversible process that can only be

controlled and regulated. Also, the Indigenous Peoples actually recognise the significance of the actual and potential economic value of their knowledge systems than is often generally perceived. This study critically challenges some general views about indigenous communities and their knowledge systems.

In addition, the bulk of legal research in this area has been situated within legalistic analyses that fail to take into account other key approaches such as the cultural, environmental and anthropological ways of dealing with the issues at play. This study critically assesses the legalistic approach using the existing literature and also ventures into the cultural, anthropological and environmental approaches of looking at the problem. As a legal study, it is conducted against the background of IP law, which is the dominant legal mechanism of knowledge protection available at both national and international levels. The idea is not only to confine the critique to a consideration of the role of IP law but also to look at IKS within its social, cultural and environmental context. Therefore, while studies in this field have focussed largely on the applicability or otherwise of IP law to IKS, this study takes a wider and more varied approach that considers not just the legal, but sociological, anthropological and historical aspects. The latter approach required field research to find out more about the production, transmission, transfer, exchange, protection and distribution of knowledge within and across communities. In that sense, the enquiry into the applicability of IP law is only one issue among a number of others. An understanding of the nature of IMK is vital for purposes of developing appropriate policies and mechanisms that respond to the specific

needs of the Indigenous Peoples. In that way, it attempts to unify the approaches as the best way to approach and resolve the problems that arise in this area.

The concentration of this study on IMK systems is an acknowledgement of the diversity and differences of forms of IKS. It also enables a deeper analysis of issues in respect of this particular form of IKS. The study is also problem centred in that it identifies a specific problem around which the investigations are conducted. It profiles the problem and investigates the causes and impact of the problem on the stakeholders. The approach taken is that the causes of problems are significant elements for the construction of solutions. Besides the general examples taken from the literature, a case study is depicted to illustrate the reality of the problem within the geographical area of study². The problems arising from that case also act as justifications for this study.

The core of the study is therefore informed by field research, which is the key data collection method particularly in exploring the situation of IMK systems within the cultural context. The study sought to depart from the largely theoretical analysis prevalent in the literature by taking a field assessment in order to understand and depict the reality of the situation of the IMK and its custodians. Significant methodological aspects of doing research in indigenous communities informed this research and such is their significance that this work contains a complete chapter on these issues³. In addition, interviews were carried out among activists, scientists, researchers and others working in this and related areas in Zimbabwe.

² The case study is presented in Chapter 8, which deals with the nature of IMK systems in Zimbabwe and the challenges that are being faced.

1.4 OUTLINE OF THE THESIS OF THE STUDY

This work demonstrates the thesis that firstly, the vulnerability of IMK systems is a product of the historical encounter and relationship between the broad Western Knowledge Systems (WKS) and the Indigenous Knowledge Systems (IKS) which produced imbalances and inequalities that weighed against the latter. It is argued that WKS became the dominant force and sidelined the IKS thereby relegating their claims for protection. This encounter and relationship has shaped the treatment of IKS and IMK in particular, as they were pushed to the margins. While most aspects of the WKS were afforded legal protection by the state and the international system, the IKS were left out of the formal systems of knowledge protection and became sources from which new knowledge could be researched and “discovered” for the expansion of the WKS. Therefore, the major problems centre on the fact that the Indigenous Peoples have not been granted recognition for their contributions to knowledge. On the other hand the individuals and corporations that use their knowledge can receive intellectual recognition and financial benefits mainly through the IP law system that rewards creativity and knowledge development principally within the domain of the WKS. In light of increased awareness of the economic potential, legal and cultural entitlement in respect of their knowledge, the Indigenous Peoples view the practice of using their knowledge by corporations and individuals for commercial interests as violations of their cultural and economic rights (Coombe 1998). The current prominence of their voices is a culmination of many years of struggle.

³ Refer to Chapter 3 of this study below.

Critically, at the centre of the problems are key legal and non-legal aspects that have historically defined the position of and perceptions regarding IKS. The comprehensive nature of the historical marginalisation in legal, social, economic and cultural terms means that there are many factors that weigh against IKS and as a result the solution to their plight extends beyond technical legal analysis and reconstruction. Consequently, the solutions lie in raising the status of IKS and generally addressing these imbalances in a broad-based and holistic way. The solutions can be effective through a comprehensive overhaul of the systems and aspects of the social fabric, which undermine their status, legitimacy and validity. There is need to create appropriate instruments and a conducive environment both to protect the economic and socio-cultural rights of the Indigenous Peoples and to harness the economic potential of their knowledge.

1.5 OUTLINE OF THE PROBLEM UNDER INVESTIGATION

1.5.1 EXPLOITATION OF IMK SYSTEMS

The fundamental problem at the centre of this study is the inequitable exploitation of IMK systems largely for commercial purposes without acknowledging or rewarding the Indigenous Peoples who are the creators and custodians. This is closely connected to the problem of exploitation of biological resources located in indigenous territories. The IMK relates to the cultural and biological resources within indigenous communities and the exploitation is often described as "bio-piracy" to reflect the wrongful extraction of

biological materials⁴. What this expression masks is that there is a key component of knowledge as a separate and key concept which deserves special attention and its exclusion may indeed obscure the core of the claims. Probably the apt term in the latter sense would be "knowledge-piracy". However, both "bio-piracy" and "knowledge piracy" would inevitably entail consideration from cultural, epistemological, environmental and intellectual property perspectives.

Researchers and pharmaceutical companies realise that Nature holds many solutions to the health problems affecting humanity⁵. As a result there is greater interest and increased activity in the search for natural remedies that can be developed on a wider industrial and commercial scale (Stenton 2004). Most indigenous populations of the world have remained closely connected to Nature for generations. They have relied on Nature's hand for various needs including food and medical uses. Consequently, they have developed a vast store of diverse knowledge of the natural environment within which they live. Their knowledge of plants, herbs, animals and other natural objects that have medicinal properties for particular health problems is now widely acknowledged by scholars although the legal instruments and institutional structures for that recognition remain scant (Posey & Dutfield 1996).

⁴ A headline in a Zimbabwean national daily newspaper stated "**ZINATHA, NGOs want law to protect plant species**" Daily News 21 June 2001 referring to the clamour for legal protection against the exploitation of resources in Zimbabwe.

⁵ Chasokela states that "Big pharmaceutical companies from the US have further investigated wild plants that used to be consumed by the *Khoisan* of southern Africa when food was scarce. They are now manufacturing them commercially as slimming agents and appetite suppressants" Report in The Business Tribune 28 May 2004

1.5.2 SCIENTIFIC INTEREST IN IMK SYSTEMS

In order to carry out effective research that is efficient and cost effective, scientific researchers consult the Indigenous Peoples in their communities seeking clues and knowledge in respect of such medicinal remedies found in natural organisms (Weidlich 2003). They use that knowledge to search forests, collect plant and animal tissue for the laboratory experiments within the realm of scientific research. The results of those experiments may yield drugs that are useful for a number of medical purposes. When these drugs are produced and marketed on an industrial and commercial scale, the companies claim the profits. The researchers and companies also claim recognition of their ingenuity and effort for inventing the medical drugs⁶. This is achieved with the help of the legal framework that rewards inventors by granting patents and exclusive rights over the pharmaceutical products or processes.

On the other hand, the system does not recognise or reward the contributions of the Indigenous Peoples who play a fundamental role in supplying the primary knowledge and the identification of the biological resources that have useful medicinal properties⁷. The medical knowledge of the Indigenous Peoples is not properly recognised under the current legal regime and consequently the law does not protect it (Quinn 2001). This is in

⁶ "[There are] threats from foreign scientists who, in the name of research, pirate Zimbabwe plant species and patented them without official authority" Report in The Daily News "Research Department Launches Genebank" 5 May 2000

⁷ According to Mushita, "... the application of Intellectual Property Rights (IPR) and Patents (sic.) reinforces the deprivation of the victims of the appropriated knowledge to benefit from their innovativeness (sic.)" Unpublished Paper held on file.

contrast to the IP law system that addresses most of the protection needs of the knowledge created and developed within the WKS.

Against this background traditional communities have characterised this practice as “theft” of their knowledge by researchers and corporations (Shiva 2000). They characterise the use of their ideas without acknowledgement or economic reward is immoral, unfair and exploitative (Coombe 1998). In that context they demand mechanisms for the protection of their rights to knowledge. On the other hand, research companies argue that they add value to the information they get from the communities and hence they are entitled to claim inventions (Stenton 2004). They also point to the fact that not all indigenous knowledge leads to the successful development of drugs or other products of industrial use (Grubb 1999). Since the research process is highly uncertain and capital intensive they claim entitlement to the results of their efforts and capital investment. Hence at the core there is a conflict between the interests of the local communities that provide the primary knowledge and the research and corporate community that are involved in experimental research and commercial product development.

1.5.3 RESEARCH AS THE POINT OF CONFLICT

It is clear from the foregoing that scientific and related research into IMK systems is at the centre of the problem. Arguably, the interaction between knowledge systems has been taking place over a long period of time as societies met in their various movements.

While this study identifies research as the point of contact it also notes that research into IMK systems in principle is not necessarily the problem. If research and exchange of knowledge have been taking place over many years, one must question why the issue of use of IMK has become such a topical and hotly debated issue in recent times. There may be various possibilities and the following questions are central:

Is it because the voices of protest by Indigenous Peoples were not being noticed? Or is it because the indigenous communities were not aware that their knowledge was useful that it was actually being employed profitably by researchers and corporations? Or could it be that the communities were so altruistic and too generous to worry about the economic and cultural value of their knowledge and were only too willing to help save mankind by contributing to the store of knowledge? In summary, why, if research has been taking place over the years, has the issue of lack of protection IMK systems become such a hotly contested issue today? In addition, why would this issue be worthy of research?

Arguably it may not be easy to give precise answers to these questions without adequate research but it is questions of this nature that this study seeks to explore in more detail.

The interest in the IMK systems by pharmaceutical and research institutions has brought the major commercial players and the Indigenous Peoples into close contact characterised chiefly by conflict. It is possible that Indigenous Peoples may not necessarily be averse to research *per se* but probably disagree with the manner in which research has been performed in their territories and about their way of life. The increasing awareness means

that Indigenous Peoples now realise that their traditional knowledge has commercial value and that research is not just culturally intrusive but also economically disempowering. These factors have increased the tensions over research.

Therefore the starting point of this study is not whether there should be interaction between IMK and WSK at all because history has meant that contact is inevitable. In light of that fact this study identifies that it is how that contact and interaction should be handled that is more crucial than simply whether there should be any contact at all.

1.5.4 ILLUSTRATIONS OF THE PROBLEM

There is a wide variety of examples from the existing literature that demonstrate the existence of the problem affecting the indigenous communities around the world. They also indicate the international nature of this problem. The examples depict the clash of interests and values between indigenous communities and the scientific research and corporate community. They are drawn from secondary sources and illustrate the widespread nature of the problem. The following table shows some examples of the central problem under study.

TABLE 1: SELECTED ILLUSTRATIONS OF THE PROBLEM

Rosy Periwinkle case	The Rosy Periwinkle is a plant that is native to the Madagascar. It contains an alkaloid that is useful for the treatment of certain forms of cancer. Research was conducted and a pharmaceutical company identified two alkaloids and is now in commercial production. The company reportedly earns millions of dollars from the manufacture
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	and sale of these products. The indigenous people of Madagascar have used these products for a long period of time. Although they were primary contributors to the identification and development of the commercial products, they were not compensated nor recognised for their contribution.
Neem tree case	The <i>neem</i> tree has been a very important plant for people in India and Africa for a very long time ⁸ . Medicines, pesticides and food have been derived from the <i>neem</i> tree. An American called Robert Larson observed the usefulness of the <i>neem</i> tree from the way it was used by the local people and began to import the <i>neem</i> seed into America. After research had been carried out W.R Grace and Company, a US-based multi-national chemical company acquired patent rights to the extract or products deriving from the extract particularly for the purpose of controlling fungi and insects. <i>Morgosan-O</i> is an extract that is useful for pesticidal purposes. More companies such as the Native Plant Institute and the Japanese Termo Corporation were able to obtain other patents on products based on the <i>neem</i> tree seed. There was also a patent on toothpaste based on the <i>neem</i> tree. ⁹ This was regardless of the fact that the extracts had been applied for those purposes for quite a long time in the indigenous communities. Their knowledge was used for commercial purposes without acknowledgement nor reward.
Basmati Rice case	<i>Basmati</i> rice had been grown in India for quite a long time. In local parlance <i>Basmati</i> means, “queen of aroma” and that defines its distinct aroma and flavour. There are several varieties that have been developed over a long time. Rice Tec International, a US multinational company managed to get a patent on a rice product derived from <i>Basmati</i> . It claimed that its derivation was an innovation. According to Quinn the patent claims were so broad and showed clearly that the patent subject was a derivation of the crossbreeding of the Indian variety with others. The patent also extended to “functionally equivalents” of <i>Basmati</i> rice thus threatening the use of <i>Basmati</i> varieties already in use by the indigenous Indians. They also claimed exclusive rights to the use of the name, “ <i>Basmati</i> ” in total disregard to the prior existence of this name among the Indian population ¹⁰ . There have been challenges to the patents and long-drawn battles have taken place ¹¹ .
Karela Juice case	The <i>Karela</i> juice has been used in India as an anti-diabetic substance. Its use has apparently been well documented. A company from the US was able to obtain a patent for a herbal mixture that contains <i>karela</i> ¹² .
Tumeric case	<i>Tumeric</i> has been in use among Indigenous Peoples for treating wounds. Some expatriate Indians in America managed to acquire a patent on the product derived from <i>Tumeric</i> . However, when the Indian Council for Scientific and Industrial Research filed a complaint on the grounds that <i>tumeric</i> had been used for those

⁸ See a full case history by Vandana Shiva, “The Neem tree – A case history of biopiracy” on <http://www.twinside.org.sg/title/pir-ch.htm>

⁹ For more detail see, <http://www.healthlibrary.com/reading/neem/chap10.htm>

¹⁰ For more detail see, <http://www.primalseeds.org/biopiracy.htm>

¹¹ Also see <http://www.twinside.org.sg/title/denounced.htm>

¹² See summary on http://www.actionaid.org/resources/pdfs/trips_farmers.pdf

	purposes for thousands of years, the US Patents and Trade Marks Office agreed to cancel the patent ¹³ . Significantly it had to produce evidence that the uses had been documented and not just oral knowledge ¹⁴ .
<i>Brazzein</i> Berry case	The <i>Brazzein</i> berry is indigenous to Gabon in West Africa. It is 2000 times sweeter than sugar. Its qualities have been known for many years to the people of Gabon and West Africa. An American scientist observed the indigenous people consuming this berry and acquired the knowledge of its qualities. After some laboratory work the researchers worked out ways of producing synthetic versions and acquired three patents on proteins isolated from <i>brazzein</i> . The local knowledge of the indigenous people in Gabon was not recognised and therefore no rewards were given to them for their contributions ¹⁵ .
<i>Hoodia Gordonii</i> Cactus case	The <i>Hoodia Gordonii</i> cactus has always been used by the <i>Xhomani</i> san tribe of Southern Africa for purposes of staving off hunger and thirst during long hunting expeditions. The idea was that the hunters would not be tempted to eat what they caught and would therefore bring everything back for the families at home. A UK based firm Phytopharm entered into an agreement with the South African Council for Scientific and Industrial Research and claimed that it had “discovered” a potential cure for obesity that is derived from the plant. It patented P57, the active ingredient that suppresses appetite. It entered into a deal with the US pharmaceutical giant, Pfizer. The deal is worth £21 million and the market for anti-obesity drugs is large in the western world. The indigenous peoples had been ignored and there was nothing accruing to them despite their knowledge being the primary source of the research. According to Phytopharm they thought the people who had discovered the plant had disappeared a long time ago. The indigenous peoples have made complaints and currently there is a process of negotiation in order to work out ways of compensating them.

These are just a few of the cases that illustrate the characteristic problem under study.

Arguably, these problems arise from the fact that while there is an officially recognised legal system that largely protects most modern scientific knowledge, there is no corresponding mechanism to protect the knowledge systems of the Indigenous Peoples. It is debatable whether the current IP law system that is used for the protection of modern

¹³ Refer to <http://www.twinside.org.sg/tittle/tur-cn.htm>

¹⁴ A good summary is at http://www.actionaid.org/resources/pdfs/trips_farmers.pdf

¹⁵ For more details refer to http://www.actionaid.org/resources/pdfs/trips_farmers.pdf

scientific knowledge can be used to adequately protect IMK systems. The examples show that this is a problem that is affecting Indigenous Communities across the world. A further and more detailed case study drawn from Zimbabwe is discussed later in this study¹⁶. At present, it suffices to state that it is clear that the problem exists and requires further investigation and closer attention as this thesis attempts to do. Now that the primary problem at the centre of this study has been identified and concretised it is important to define key terms that recur throughout this thesis.

1.6 DEFINITION AND EXPLANATION OF KEY CONCEPTS

There are certain key terms that are applied throughout this thesis and it is vital to specify the meanings that they are assigned for purposes of this study. These terms include "Indigenous Peoples", "Indigenous Knowledge Systems" (IKS), "Indigenous Medical Knowledge" (IMK), "Western Knowledge Systems" (WKS), "Western Scientific Knowledge" (WSK) and "Intellectual Property law" (IP law). It is also necessary to explain the relevance of discussing IP law aspects to the study of IKS. The clarification of terminology is important given the lively debate that has taken place since the issues pertaining to Indigenous Peoples achieved prominence in the academy (Blakeney 1999).

1.6.1 INDIGENOUS PEOPLES

The definition of the term "Indigenous Peoples" eludes easy and specific delimitation (Wiessner 1999, Anaya 2001). Consequently, although this term has gained common

¹⁶ Refer to Chapter 8 below.

usage in recent decades, there is no universal consensus on its meaning because proposed definitions are either under-inclusive or over-inclusive (Kingsbury 1998). Other functional equivalents of the term include “Traditional Peoples”, “Local Peoples”, “First Nations Peoples” or “Aboriginal Peoples” (Blakeney 1999).

In this work the term “Indigenous Peoples” is preferred for the reason that, “[it] bears a range of justifications, variously based on equity, history, the value of diversity, functional criteria, politics and law.”(Kingsbury 1998: 415). Although the alternatives can be used, arguably they might lack the “normative purchase” that the preferred choice possesses (ibid.). The term “Indigenous Peoples” captures the essence of the experience of the peoples in their encounter with the foreign occupiers and illustrates the close connection to the territories that they occupy or claim as their own. It is also the term that has been used by the international governmental agencies and is adopted in the UN Draft Universal Declaration of Indigenous Peoples Rights (1993).

According to Anaya Indigenous Peoples are “living descendants of pre-invasion inhabitants of lands now dominated by other ... [They are] culturally distinctive groups that find themselves engulfed by settler societies born of the forces of empire and conquest” (1996: 3)¹⁷. The International Labour Organisation (ILO) also attempts to give

¹⁷ The first Special Rapporteur of the United Nations Working Group on Indigenous Populations, Dr Jose Martinez Cobo offered one widely acclaimed definition of indigenous peoples. He stated that, “Indigenous communities, peoples and nations are those which, having a historical continuity with pre-invasion and pre-colonial societies that developed on their territories, consider themselves distinct from other sectors of the societies now prevailing in those territories, or parts of them. They form at present non-dominant sectors of society and are determined to preserve, develop and transmit their ancestral territories, and their ethnic identity, as the basis of their continued existence as peoples, in accordance with their own cultural patterns, social institutions and legal systems.” (Wiessner, 2001: 111)¹⁷ However, this definition might be under-inclusive because it places the process of colonisation at the centre of the definition yet in

a definition of Indigenous Peoples in its Convention 169 by setting a test that focuses on the distinctiveness in social cultural and economic conditions of the people to determine their indigenous status¹⁸.

In addition, Professor Erica-Daes who chaired the UN Working Group on Indigenous Populations argued that formal definition will cause problems but prefers a set of factors that could be used for purposes of understanding the term without great constraints¹⁹. This method has also been widely acclaimed (Blakeney 1999). These factors include:

- i. priority in time, with respect to the occupation and use of a specific territory;
- ii. the voluntary perpetuation of the cultural distinctiveness, which may include the aspects of language, social organisation, religion and spiritual values, modes of production, laws and institutions;

some parts of the world where European colonisation did not take place there are also some Indigenous Peoples who still find themselves marginalised by more dominant groups. In addition, by its emphasis on minority status it also excludes the peoples who are a numerically dominant in the present age yet they were subjects of colonisation and marginalisation previously. For example does it mean that the indigenous peoples of African countries are excluded simply because they now form part of the mainstream in political and social life having succeeded in their struggles for self-determination?

¹⁸ Article 1(1)a and b state that,

“1. This Convention applies to:

(a) Tribal peoples in independent countries whose social, cultural and economic conditions distinguish them from other sections of the national community, and whose status is regulated wholly or partially by their own customs or traditions or by special laws or regulations;

(b) Peoples in independent countries who are regarded as indigenous on account of their descent from the populations which inhabited the country, or a geographical region to which the country belongs, at the time of conquest or colonisation or the establishment of present State boundaries and who, irrespective of their legal status, retain some or all of their own social, economic, cultural and political institutions.” However, as Date-Bah points out, the ILO definition appears to exclude the Indigenous People in Africa who are majorities in their countries and seems to equate “indigenouness” with minority status (Date-Bah, 1998).

¹⁹ Kingsbury echoes similar views, arguing that “the aspiration for perfect positivist coherence is unachievable” (1999: 415). In addition, the difficulty is also illustrated by Tuhiwai-Smith who points out that, “the term internationalises the experiences, the issues and the struggles of some of the world’s colonised peoples” whereas in fact there exist prior or local terms to accurately identify the people in their local areas (1999: 7).

- iii. self-identification, as well as recognition by other groups, or by State authorities, as a distinct collectivity; and
- iv. an experience of subjugation, marginalisation, dispossession, exclusion or discrimination, whether or not these conditions persist” (Wiessner 1999: 114)²⁰

As Daes pointed out, there are certain underlying common features such as the colonisation by people from other regions, the fact of marginalisation and dispossession and also the existence of cultural distinctiveness. Therefore, “Indigenous communities are thus best conceived of as peoples traditionally regarded, and self defined, as descendants of the original inhabitants of lands with which they share a strong, often spiritual bond” (Wiessner 1999: 115). There is a cultural, social and economic distinctiveness about their way of life from that of the other members that settled in their territories.

1.6.1.1 COLONISATION

An important characteristic of the Indigenous Peoples around the world is their common colonial experience. The creation of the modern indigenous “other” is traceable to the colonial encounter between Europeans and the people they found in the occupied

²⁰ Working Paper by Professor Erica-Irene Daes UNESCO, Commission on Human Rights, SubCommission on Prevention of Discrimination and Protection of Minorities, 14th Sess., UN Doc. E/CN.4/CN.4/Sub.2/AC.4/1996/2 (1996); also quoted in Blakeney, M "Intellectual Property in the Dreamtime – Protecting the Cultural Creativity of Indigenous Peoples" at <http://www.oiprc.ox.ac.uk/EJWP1199.html> However, while the characterisation is largely helpful for purposes of identifying indigenous peoples, some critics find problems with her first point in respect of priority in time in a particular place for the reason that the issue of original habitation can be objectively contested (Wiessner 1999: 114). When that occurs and one group in another part of the world successfully proves that their ancestors were in fact in that territory in some bygone era, it might defeat the claim of the people who today may be more likely to claim indigenous status. Wiessner counsels that such definitions

territories. It is imperialism that creates the indigenous experience as it is understood in the human rights debate today (Tuhiwai-Smith 1999). Historically they have suffered at the hands of the people who came into their territories and common treatment included marginalisation, subjugation and dispossession. Therefore although the term may be problematic in that it collectivises different people in separate regions under the same umbrella it has empowered the voice of the marginal people in the international arena (Tuhiwai-Smith *ibid.*). This is because it brings them together to strategize and struggle collectively against the injustices of the past and present.

The process of colonisation marginalised and relegated Indigenous Peoples to “minor spaces, reservations, bread crumbs of land conceded by the dominant society” (Wiessner 1999: 58) They were deprived of their traditional lands which consequently robbed them of their cultural, economic and social independence. New legal orders were used to deprive the indigenous populations of their lands. In the case of *In re Southern Rhodesia*²¹, the Privy Council of the House of Lords held that there was no system of entitlement to lands among the indigenous populations of Zimbabwe before the colonial period. It was thus legitimate to acquire land, as they were no prior claims to it since it was not owned by any person from the perspective of the colonising laws. The court stated that, “Some tribes are so low in the scale of social organisation that their usages and conceptions of rights and duties are not to be reconciled with the institutions or the legal ideas of civilised society.” (*ibid* at 218) This meant that the traditional lands were considered to be available for acquisition, as no person owned them. The new system did

that are empirically framed must be avoided because they can be easily defeated on the basis of empirical falsification thus leaving the people that seek protection more vulnerable (*ibid*).

not recognise the Indigenous Peoples' entitlement to their lands. It was considered that there was no legal order giving any proprietary interest in land. Similarly in Australia lands belonging to the Aboriginal tribes were taken on the application of the *Terra Nullius* doctrine which was however later declared as no longer part of Australian law in the famous *Mabo* case²².

This system saw the territorial dispossession of Indigenous Peoples as the first step of marginalisation. This domination extended to languages, culture, religion, political and economic spheres. Colonialism in indigenous territories introduced fundamental institutional and normative changes as far as governance of the people was concerned. It involved the application of norms that were external to their way of life and in many instances the traditional institutions were weakened in order to further the cause of the colonial enterprise. Characteristically most indigenous communities generally live in poor conditions dominated by lack of access to resources that are usually in the custody of the state and private owners. In most cases they do not have political power or easy access to decision-making processes.

²¹ 1919 AC 211

²² **Mabo v Queensland** (No 2) (1992) 175 CLR 1 , (1992) 107 ALR 1 The High Court of Australia held that there was a system of law operating in Australia prior to British settlement in 1788 which was entitled to respect and recognition by the common law. The Court held that the common law recognises a form of native title in accordance with the laws and customs of indigenous people. *Mabo* was a landmark case in that the decision of the court marked a departure from the old doctrine of *Terra Nullius* that had been used to justify the occupation of Aboriginal lands in Australia. As the Australian court abandoned the doctrine of *Terra Nullius*, there was recognition of native title to the lands and that it had long existed prior to the occupation by the Europeans. In the leading opinion of the court, Justice Brennan stated that the denial of tribal title to the Murray Islands in the Torres Strait was a not only discriminatory but also denigrated the indigenous people and their social organisation and ways of life. The court cast aside the fiction of the non-existence of rights and interests of the Indigenous Peoples to their lands and indicated that such thinking has no place in modern society. The denial was described as unjust, discriminatory and unacceptable.

1.6.1.2 KINGSBURY'S CONSTRUCTIVIST APPROACH

In light of the difficulties of formulating a precise and positivist definition a preferred method suggested by Kingsbury (1998) is the “Constructivist” approach. It treats the concept as flexible and fluid without

“sharply defined ... [or] universally applicable criteria but embodying a continuous process in which claims and practices in numerous specific cases are abstracted in the wider institutions of international society, then made specific again at the moment of application in the political, legal and social processes of particular cases and societies.” (ibid at 415).

It resonates with Daes’ method as it creates a definition according to the context. The advantage is that it is adaptable and varies with different societies and issues at hand. It is necessary however to identify core themes that are embedded in the concept of “indigenous”.²³.

In conclusion, the controversy over the definition of the term is indicative of the different contexts within which indigenous communities in different parts of the world are located and the circumstances that have shaped their present existence. The difficulty of defining Indigenous Peoples universally results from the different contexts within which they are located. The important aspect is the communities' self-identification as Indigenous Peoples. It is sensible to assume that those that are indigenous to a particular territory are

conscious of that fact and do not have to define or justify themselves to any one. That they are indigenous is obvious to them and they identify themselves as such. The use of “contrast reasoning” is a useful guide in the sense that Indigenous Peoples are often identifiable by their distinction from the other members of the territory that settled in the local territories (Kingsbury 1998).

1.6.1.3 THE INDIGENOUS PEOPLES OF ZIMBABWE

Zimbabwe is a landlocked country located in Southern Africa. It lies between South Africa to the South, Botswana to the South West, Mozambique to the East and Zambia to the North. The population of Zimbabwe is 15 million people (Census 2002). About three-fifths of the population is located in the rural areas and the rest are in urban or semi-urban areas. The indigenous population is composed of two major ethnic groups: *Shona* and *Ndebele*. There are smaller sub-groups among these main groups. These include the *Karanga, Zezuru, Tonga, Ndau, Venda, Manyika, Kalanga, Sotho etc.* Together these groups constitute at least 98 per cent of the population. In addition to these groups there are also people of European and Asian origin who comprise close to 2 per cent of the population. The *Shona* ethnic groups dominate most of the country while the *Ndebele* groups are mainly concentrated in the southern and western parts of the country. There is however no exclusivity since population movements meant that most people now live all over the country regardless of tribe.

²³ Refer also to Daes’ formulation above.

Zimbabwe was colonised in 1890 by Britain through the British South Africa Company (BSAC) led by Cecil John Rhodes. Most of the European and Asian population settled in Zimbabwe in the late 19th century and 20th century pursuant to the advent of colonialism in Africa. Although European communities such as the Portuguese had been in contact before colonisation, the late 19th century period marks the beginning of closer and more defined encounters between the Indigenous Peoples and the settler community²⁴ (Goldin & Gelfand 1975). Although there were major rebellions in 1893 and between 1896-8 by the local ethnic groups against the settlement and colonial rule the settlers succeeded. Consequently, Zimbabwe was a colony for 90 years until it gained independence in 1980. In this context the definition of Indigenous Peoples of Zimbabwe for the purposes of this study is identified on the basis of the colonial encounter. The various sub-groups under the *Shona* or *Ndebele* tribal groups that were encountered at the advent of colonialism are the Indigenous Peoples of Zimbabwe in the context of this study.

The use of the index of colonialism to define the indigenous population may be controversial but it provides the easiest point of demarcation by placing the foreign occupiers who arrived from other continents as the non-indigenous and the locals that were living in the territory as the indigenous. The distinctions were more apparent in the colonial era when the locals were called “Natives” or later “Africans” while the settlers were referred to as the “Europeans”. The distinctions are also apparent in the location of the different communities. While the settler community settled in commercial farming and urban communities, the locals were pushed to peripheral regions known as Tribal

²⁴ A useful account of the colonial encounter and process leading to British colonisation is set out well by Lord Sumner in Re Southern Rhodesia [1919] AC 211

Trust Lands (now known as communal areas). The locals continued with their traditional way of life although some gradually joined the urban and commercial farming areas in search of employment in order to meet the requirements of the new colonial order. However by and large they retained links with their rural communities where the majority continued to live. This is still the situation to this day²⁵. This study was conducted mostly in the *Shona*-speaking areas although especially in Harare people from other tribes were also interviewed.

1.7 DEFINITION OF KNOWLEDGE SYSTEMS

These terms are used throughout this study and this section deals with their definitions. They will be referred to mostly by their acronyms.

1.7.1 NATURE AND DEVELOPMENT OF IKS

At a general level, knowledge encapsulates the expressions of people's conceptions of the world²⁶. The conceptions differ and vary according to *inter alia* needs, time and space. Every society has developed systems for survival and progress. Knowledge is both an individual and collective construction of the world and its components. One receives knowledge from the community into which he is born but also engages in the process of transforming it and this goes on from generation to generation (Bhola 2003). Knowledge

²⁵ There have been political and social upheavals due to the crisis in Zimbabwe since the year 2000 which has seen the displacement of most commercial farmers and farm workers from commercial farming areas. Arguably this has affected the geographical distribution of people in the country. However, at present turmoil still reigns and there are no official figures to indicate the consequent population distribution.

is produced from the resources available to the people. In that sense, every society has developed a knowledge system that is indigenous to its own origins.

In light of that, IKS are therefore by definition knowledge systems that are indigenous to a particular society that is indigenous to its environment. In that context the IKS are defined as the knowledge systems of the Indigenous Peoples as defined in this study. Indigenous communities as defined in this study, have developed extensive knowledge systems as both a means of survival and reflective of their continuous desire to cope with their natural surroundings. It has been noted that "Indigenous knowledge illustrate(s) how the people had learned to survive in their environment." (Veitayaki 2002: 401). Indigenous societies have dealt directly with the environment for survival and the have developed detailed knowledge about their locations and sustainable mechanisms of dealing with and managing the resources. (Maffi 2002). In this context, IKS embody the expressions of Indigenous Peoples' world-views (Tuhiwai-Smith 1999).

There has also been controversy over the use of terminology in this area²⁷(Kongolo 2000). At the beginning, the term "folklore" was applied in international debates and draft instruments²⁸. However, there was criticism over the use of that term (Kuruk 1999; Blakeney 1999). It was regarded as giving negative connotations of "archaism" and

²⁶ This study does not intend to engage in a prolonged and deeper analysis of the concept of knowledge, which is a subject of great philosophical debate of historical proportions.

²⁷ Blakeney gives a good summary of the controversy over the use of the terminology in this area in a Working Paper presented at the Oxford Intellectual Property Research Centre, Blakeney M. Intellectual Property in the Dreamtime – Protecting the Cultural Creativity of Indigenous Peoples, WP 11/99, OIPRC Electronic Journal of Intellectual Property Rights <http://www.oiprc.ox.ac.uk/EJWP1199.html> Originally presented on 9/11/99

²⁸ The African Regional Industrial Property Organisation (ARIPO) still refers to all types of knowledge in indigenous communities as "folklore". (ARIPO Report 1999)

inferiority or of being dead and buried and ready to be collected and preserved (Kongolo 2000). It was also too narrow in that it tended to cover the literary, artistic and performing expressions whereas there is more to the knowledge of Indigenous People than that (Mugabe 1998).

Indigenous communities have developed a wide variety of awareness of the functions and uses of plants and animals in their local areas. They are knowledgeable about their use for food, medicine and various other purposes. This encompasses agricultural, industrial, medical, artistic, cultural and educational areas. This cumulative knowledge has been developed and preserved by transmission inter and intra-generationally (Blakeney 1999, Chavunduka 1994, Chitsike 1999). In essence, this is knowledge developed by people in close interaction with the natural and spiritual worlds. IKS are part of the cultural heritage of the indigenous communities (de Koning 1999).

1.7.2 IKS AS A CONTRAST TO WKS

IKS systems are often defined and described as contrasts to WKS. This distinction has been challenged by scholars who perceive it as being artificial and problematic (Agrawal 1995; Davis 2004). They argue that the distinction creates a dichotomy that is problematic since there is inevitably exchange and dialogue between the systems. It is argued further, that the distinction assumes that knowledge is fixed in time, space and content whereas the creation of knowledge is in fact a fluid process which evolves in terms of political, institutional, cultural and economic changes (Agrawal 1995). Davis

adds that the distinction has the effect of creating hierarchies of knowledge thereby placing the so-called WKS in a dominant position and the IKS in a subordinated position. While these are powerful points, they can at best function as critiques of the reality etched in history. The distinction between the two knowledge systems has deep historical roots and it is not so much that there are similarities in content and structure but that there has been no proper dialogue between the systems. Even as Agrawal proposes the search for similarities to promote open communication, he is acknowledging the existence or identification of the knowledge systems as separate entities. It may be quite right that the separation may not be warranted and ought to be dismantled but it does not erase the reality that historically and at present, the distinctions exist between the systems. This study accepts the view that there is potential for mutually enriching dialogue between the systems but argues that because of the historical distinctions and struggles it is necessary to have a full understanding of the IKS hence the identification in this study of the two separate systems.

While there are variations in content, what binds IKS across the globe is their common experience in their encounter and dealings with the WKS. Like the naming of the local people that were encountered by the settlers who came to their territories as the “Indigenous Other”, local knowledge was also tagged as the “other” knowledge system as the WKS took precedence and dominated in every sphere (Davis 2004). As the study will show in more detail WKS are those systems of knowledge that were introduced into the indigenous territories when non-indigenous people mainly from Western Europe settled in those territories. WKS largely emanated from the Western Europe more

effectively during the Industrial and Agricultural Revolutions of the 19th century (Darien-Smith 2002). Those revolutions witnessed the proliferation of scientific knowledge and innovation of industrial and agricultural techniques and products. At that time the advancing system of Western science challenged the existing knowledge systems largely based on the Christian religion (Kuhn 1962; Juma 1989). As the dominant way of thinking Western knowledge is modelled as scientific in methods of experimentation and characterised as objective, systematic and rational and therefore morally superior (Bujo 2001). Historically, the IKS were often dismissed as the “primitive other” while the WKS took precedence as the official and accepted knowledge of the system in power (Tuhiwai-Smith 1999). The distinctions based on method and substance may be tenuous given the challenges that show some similarities between the systems (Agrawal 1995), but the one distinction that has remained is that of the position of the knowledge systems within societies as the institutional, political, economic and cultural changes have evolved in indigenous territories. Thus the WKS continue to command a position of dominance, while the IKS are on the margins although this is gradually changing due to the renewed interest in the potential in those systems.

1.7.3 DEFINITION OF IMK SYSTEMS

Indigenous Medical Knowledge systems (IMK) are a component of the broader IKS²⁹. IMK systems cover knowledge of medicinal properties of plants, animals, healing techniques and medical practices of the Indigenous Peoples. Indigenous Peoples have developed a great store of knowledge of medicinal properties of natural products found in the environments in which they have lived over generations. They combine the use of natural elements and the spiritual aspects of healing. IMK is produced through different processes that may include revelation, experience, experimentation and intuition (Bhola 2003: 10). It is holistic and organic in the way in which it develops within the structures and from the way of life of the people³⁰. This knowledge system grew out of the need to cope with disease and misfortune in the people's daily lives. It is not static but is continually developing as new challenges arise (Chitsike 1999). At present practitioners of indigenous medicine are trying to come up with cure for diseases such as AIDS and it is believed that some of the concoctions help to cure some symptoms of the disease (Chavunduka 2000).

The World Health Organisation (WHO) has recognised the importance of indigenous medicine as a crucial part of the primary health care system because it is readily accessible and cheaper than conventional medicine in many developing communities (Veitayaki 2002). Indigenous Peoples are keen to emphasise the holistic nature of their medical knowledge and practice. In indigenous communities medical knowledge is not

²⁹ There is also some controversy over the terminology for this type of knowledge. Some refer to it as Traditional Medical Knowledge (Blakeney, 1997) others simply as Traditional Medicine (Chavunduka 1994) while others refer to it as the ethnopharmacological knowledge, Traditional Ecological knowledge, or even folklore (Kuruk 1999) The term IMK is preferred as it links up well with the justification for using the term Indigenous Peoples as defined in this thesis. The most important thing however is that the subject matter of the different terminology is still the same.

simply about the use of the physical products of nature but also the combination with the spiritual elements. However, when viewed from the perspective of modern science, it is the medicinal properties of plants and animals that are often emphasised yet they are only a component of the vast and diverse body of IMK (Chavunduka, 1994). This study uses the term "medical" knowledge rather than the more commonly used "medicinal" in order to reflect the holistic nature of the knowledge in indigenous communities. "Medicinal" knowledge appears to emphasize the connection with the derivative aspects the knowledge from the use of biological material, which appears to ignore the other aspects of indigenous medicine³¹.

Due to the reliance on the natural products for use as medicines and nutritional purposes, there is a close link between IMK systems and the preservation of biological diversity. The Indigenous Peoples participate in the conservation of biological diversity, which is useful for their survival and the protection of IMK is therefore closely linked to the efforts to protect biological diversity. Thus in some instances this knowledge has been referred to as "Traditional Ecological Knowledge" (Maffi 2002)

Indigenous medicine has been identified by pharmaceutical companies and researchers as an important source of developing drugs for commercial use (Quinn 2001). In particular, the knowledge of the use of biological resources for curing disease has become a rich source of data for the development of new medicines for the conventional medical system

³⁰ The nature of IMK systems in Zimbabwe are described in more detail in the fieldwork findings in Chapter 8 of this study.

(Gelfand et al. 1983). As such researchers have been engaging Indigenous Peoples across the world as they seek to identify plants, herbs and animal species that contain active ingredients for the development of medicinal drugs. As the medical research focuses on this type of indigenous knowledge and as the Indigenous Peoples realise the potential value of their knowledge the IMK system has become a primary site of struggles between the holders and the seekers of that knowledge.

Conventional medical research is conducted within the realm of western scientific knowledge (WSK). In the same way that IKS are defined by contrast to WKS, this work uses the distinction applied to IMK and WSK. Yet again, the distinctions in content and method may actually be small or even artificial but the distinctions as to the position of WSK as the dominant knowledge systems and IKS as subordinate systems have historically remained largely in place. This study demonstrates how these distinctions were made and how they have affected the position, survival and security of the IMK systems.

1.7.4 INTELLECTUAL PROPERTY LAW

Intellectual property law is the zone of law that regulates the access to and use of products of knowledge. More elaborately, according to Bentley & Sherman it is the law that “regulates the creation, use, and exploitation of mental or creative labour” (2001: 1) Intellectual property rights (IPR) generally safeguard the individual inventor or creator’s

³¹ "Medicinal" is an adjective that is often used in this area to describe the relevant biological materials e.g medicinal plants, medicinal herb. It is too narrow and does not accurately describe the totality of

rights. According to Cornish “this is a branch of the law which protects some of the finer manifestations of human achievement” (1999: 3). In addition to the recognition of the creative efforts from a policy perspective IP law aims to encourage innovation and knowledge development to promote developmental efforts.

The most well known types of IPRs are patents, copyright and trade marks. Other types include trade secrets, geographical indications, industrial designs, etc. The rights are different in content but they all delimit the extent to which a person’s entitlement to intangible property can or cannot be affected by others. Notwithstanding the difference in the types of IPRs the common factor is that they establish property protection over intangible items that include ideas, inventions, marks and generally information products. In addition, notwithstanding the close link between the intangible matter and the physical items in which they may be embodied, there is a distinction between the IPRs and the physical item. IPRs are tools that create property rights in intangible goods. IPRs are negative rights in the sense that essentially, they stop other people from doing certain things in relation to protected knowledge held or created by other people (Cornish 1999). In terms of the law a right-holder is entitled to take action to prevent the violation of those rights. In essence IP law delimits which type of knowledge is worthy of protection and which is not. The result is that the unprotected knowledge is seen as part of the public domain and therefore freely available for use by any person while the protected knowledge is accessible only on the terms set by the right holder. These exclusive rights entail that aspects of knowledge protected by IP Law are very valuable in the market

indigenous medicine which also cover spiritual aspects.

place. They only become freely available in the public domain upon expiration of the term of protection which in the case of patents is twenty years.

While IP law has developed for many years, it has become ever more important in the current international economic set-up. Whereas Thomas Jefferson granted the first US patent in 1790 and by 1992 the USA had granted its five-millionth patent³² By 2003 the figure had risen to 6.5 million patents while world-wide there is an estimated 7 million patent applications in the pipeline.³³ This is because knowledge or information has become an important commodity on the international marketplace. Companies, individuals and countries have come to depend more on the store of knowledge that is available for use in competition against others. Knowledge-intensive industries such as pharmaceuticals, high technology companies, film-production companies, etc are highly dependent on innovation, development and protection of new knowledge. They also fall under the category of the high-growth industries and they have amassed a lot of financial resources and power to influence decision-making processes in recent years (Sell 1998).

The type of IPR on which this work focuses is Patents. A patent is granted for an invention of a product or process that meets the stated requirements. It is an exclusive right granted by the state for a limited period of time and give the right to the holder to prohibit others from making, applying or marketing and selling the patented invention without the inventor's permission (Cornish 1999). It is “a limited monopoly that is granted in return for the disclosure of technical information ... and gives [the holder] the

³² Financial Times April 30 2002 (Special Report: 1)

³³ *ibid.*

exclusive right to control the way their patented invention is exploited for a twenty year period” (Bentley & Sherman 2001: 309). Usually the state exercises its power and functions through the Patents Office. A patent is granted only when certain conditions are met but in essence there must be a measure of inventiveness. The product or process must be new and must constitute an improvement over existing knowledge. Also the invention must have industrial utility³⁴.

In the context of government policy the idea is that when people are granted exclusive rights over products of their intellectual efforts, they will strive to produce more and therefore increase the store of knowledge available to human kind (Darien-Smith 2002). Therefore, from an economic point of view, patents are incentives for inventive activity. During that 20 year period of protection the patent holder has exclusive rights for the use, manufacture and selling of the patented product/process. If another person violates his rights by reproducing and selling the patented product the holder has legal rights to stop the conduct and claim damages for any losses.

As with other IP rights patents have caused considerable controversy in recent years. While potential patentees are calling for greater protection and extension of IPRs to cover new forms of knowledge such as computer programmes and software on the other hand the consumers, activists, and a host of others view the IPRs as encroachments that negatively affect access to technology. They are opposed on the grounds that they promote monopolies that increase prices of patented items.

³⁴ For a detailed elaboration of these factors see Chapter 7 below.

The campaign for the globalisation of IP law standards culminated in the conclusion of the TRIPS Agreement under the World Trade Organisation (WTO) in 1994. However despite setting those standards the opposition to TRIPS has gathered pace since its conclusion with challenges coming mainly from the Developing countries and Civil Society groups. Other parties such as Indigenous Peoples who were not participants in the Uruguay Round of Trade Talks that brought Trips into being have also begun to raise their voices against a knowledge protection regime that fails to take their interests into account (Sell 2002; Bentley & Sherman 2001). The matter has been debated in terms human rights particularly with regards to access to medicines in Developing countries.

1.7.5 RELEVANCE OF IP LAW IN THE STUDY

IP law is relevant in the discussion of protection of rights to IKS because it is the most dominant legal mechanism in the area of knowledge protection. While historically IP law has developed at national levels it is now an important part of the global economic system. This is clearly evident in the establishment and importance of the TRIPS Agreement. The debate over the globalisation of IPRs has intensified since the adoption of that Agreement. In many discussions IP law is the starting point for an analysis of the protection of IKS.

The relevant issue in this study is whether as the dominant knowledge protection mechanism IP law covers the concerns of Indigenous Peoples in relation to their knowledge systems. While on the one hand scholars point out that there is scope and

potential for IP law to be used for the protection of IKS (Downes 1998; Adewapo 2002), on the other hand some scholars argue that it is not quite suitable in view of the nature of those systems (Coombe 1998, Blakeney 1999). The result has been an intense and on-going debate over the applicability of IP law to IKS. As indicated above this study seeks to narrow the discussion to the area of patents and IMK. Of all the IPRs patents appear to have the most relevance in the area of this type of IKS. There has been a lot of academic attention drawn to this issue at both local and international levels and this discussion will therefore draw from the literature to discuss the applicability of patent law to IMK. It also investigates the attitudes and views of the Indigenous Peoples to the IP law system.

This work attempts to highlight the problems faced by IMK by analysing the strengths and shortfalls of the present IP law regime. It also seeks to develop possible explanations for the lacuna that exists in the protection of IMK. This is done through a socio-historical analysis of indigenous knowledge systems in order to understand how they have come to be in the position of weakness and vulnerability as far as protection systems are concerned. The project also tries to explore this through an analysis of the international political economy of the knowledge structure in the global economic system. In addition, it attempts to develop the principles and themes that should be taken into account in the design and formulation of strategies to redress the situation of IKS generally.

1.8 CONCLUSION

In addition to creating the context of the study, this chapter has introduced the major concepts and identified, with examples, the problem at the centre of the study. It has demonstrated the central argument that the lack of legal protection of IMK systems can be explained as a consequence of the historical encounter between different knowledge systems that tipped the balance in favour of the WSK. A clear understanding of the cause of the peripheral status helps to explain the vulnerability of IMK and the consequent claims for protection. In order to create a suitable framework of protection, it is necessary to not only re-create the legal structures to take account of the special features of these knowledge systems, but also to revamp the socio-political structures that continue to undermine the status of IMK systems. In light of the historical realities and constraints IMK systems have not been legally protected and the success of protection hinges on understanding the present realities of IMK systems and recognising the needs of Indigenous Peoples in their particular contexts. The chapter has also placed the study within the contemporary movement for the protection of Indigenous Peoples' rights.

CHAPTER 2

CONTEXT OF THE STUDY AND CURRENT TRENDS IN THE LITERATURE

2.1 INTRODUCTION

This chapter presents the broad perspectives of this study and a general review of the state of the literature in this area of study. It also develops the wider context in which the investigations in this study were conducted. The academic and research interest in the area over the last twenty years demonstrates the increasing significance in legal, anthropological and environmental studies. It is also an acknowledgement of the increasing significance of knowledge in the global economy. As companies and individuals struggle for the protection of their innovations, the previously neglected interests of other groups such as Indigenous Peoples have assumed major importance over the years. This chapter looks at the major trends emanating from the literature and shows that there is a gap in respect of Sub-Saharan Africa compared to other geographical regions which host indigenous communities as defined in this study. There have been new efforts at research and this study makes a contribution to that movement in the research and academic community.

2.2 GENERAL OVERVIEW OF CURRENT TRENDS IN THE LITERATURE

The strategy adopted in this study is that besides this general review of the trends, specific and detailed literature reviews are undertaken as each chapter develops³⁵. This section only introduces the general trends and assesses the major developments and ideas that have emerging. In doing so it exposes the gaps that this study attempts to fill and areas that it reinforces.

The area of protection of IKS has received considerable academic research and scholarly attention in recent times (Blakeney 1999, Posey & Dutfield 1996, Dutfield 1999). This is consistent with the increasing importance of knowledge based systems in the global economy and the developments in the IP law area (Drahos & Brathwaite 2002). As knowledge takes a more central position in global economics, so have the contests over the title to, use and distribution of knowledge (Ryan 1998).

While there has been considerable research and literature relating to IKS, most of it has been focused on the geographical regions of the Americas, Asia and the South-Pacific regions (Mgbeogi 2002, Mugabe 1998). In contrast, there has been relatively little scholarly attention paid to IKS in Sub-Saharan Africa and more particularly in Southern Africa. There has been no legal research in this area in Zimbabwe where much of the literature on IKS has been confined to environmental issues (Mahomed-Katerere 1996, Moyo 1995, Mlambo 2003). In more recent times, relevant and useful research has been in cultural studies anthropology (Froemer 2003)³⁶. The little legal material available on

³⁵ Thus Chapter 8 is also a more detailed review of the current debate on the applicability of IP Law to IKS.

³⁶ Froemmer carried out her fieldwork during the same period as the fieldwork for this study was done in Zimbabwe. The writer was able to meet and exchange ideas with Frommer during that period. Her work entitled *The Cultural Right to Practice in Traditional Medicinal Knowledge in Zimbabwe* has been

IP law in modern Zimbabwe with references to IKS is outdated and includes scant detail on the relevant issues (Mandudzo 1997). However, Moyo recently did a review of the IP laws in Zimbabwe but it does not address the issues pertaining to IKS specifically (Blakeney 2002). Some debates arising from the civil society groups and activists is not yet published and but this research unearthed a number of useful documents and seminar proceedings (Chavhunduka 2002, Mpande 2002, Mushita 2002). This thesis attempts to make a contribution in filling this gap in legal research and literature on IKS in Southern Africa and Zimbabwe in particular. It will be the first detailed study that deals with issues relating to IMK within the legal realm in Zimbabwe. It highlights the specific problems and needs of the Indigenous Peoples in that part of the world.

The major mechanism presently employed for purposes of knowledge protection is IP law. Current literature is dominated by the debate over the applicability of IP law to IKS in their various forms (Blakeney 1999). In the context of IMK, the question has been whether patent law can adequately protect IMK (Huft 1995, Blakeney 1997, Yano 1993) while in the area of artistic and related cultural productions the question is whether copyright law can apply (Blakeney 1995). Comparatively a large number of scholars argue in favour of the view that the current IP law regime is unsuitable for purposes of protecting aspects of IKS (Quinn 2001, Blakeney 1999, Fecteau 2001, Drahos 1999, Huft 1995, Posey & Dutfield 1996). Posey and Dutfield argued that there is need for the creation of what they called Traditional Resource Rights (1996) In her work on

published and is available on the following website:
<http://www.culturalrights.com/docs/righttoculturalpractice.pdf> (last visited on 6th June 2004)

Zimbabwe Froemmer takes a similar view although she does not go into great detail about how they would fit within the existing legal system.

However, relatively few others advocate the use of IP to protect IKS (Downes 2000, Adewapo 2002). Huft (1995) who examines the applicability of patent law to medicinal knowledge of traditional communities finds that while technically it may be possible to patent some aspects of that knowledge, there are operational difficulties in connection with the patent system that make it hard for Indigenous Peoples' to use it. Van Caenegem (2003) and Stenton (2004) also highlight the operational hardships of the IP Law system. The recent jurisprudence of the courts of Australia lends support to the view that while it is necessary to protect IKS the current IP law regime does not actually offer such protection (Blakeney 1995, van Caenegem 2003).³⁷ This study adds strength to those challenges against the dominance of IP law and demonstrates its inadequacies by investigating the views and needs of the indigenous communities in Zimbabwe.³⁸

This issue has also only recently received attention in Africa (Mugabe 1998, Laurie 1997, Mandudzo 1997, Kongolo 2000). Besides the few articles and conference proceedings much of the debate focuses on developments in other regions and there has been relatively little input from the context of Indigenous Peoples in Africa. The debate in

³⁷ In the case of **John Bulun Bulun v R. & T.T. Textiles Pty Ltd** [1998] F.C.A. 1082 van Dousa J stated that,

"These proceedings represent another step by Aboriginal people to have communal title in their traditional ritual knowledge, and in particular in their artwork, recognised and protected by the Australian legal system. The inadequacies of statutory remedies under the Copyright Act 1976 as a means of protecting communal ownership have been noted

Africa has often led to calls for a *sui generis* system for the protection of IKS including plant varieties, artistic forms, medicinal remedies (Mushita 2000, Chitsike 1999). The problem appears to be the blanket approach taken to IKS that puts art forms, medicinal knowledge, and plant varieties as one entity that can be dealt with in the same way. The African Regional Industrial Property Organisation (ARIPO) continues to describe everything under the term "folklore" but identifies the difficulties of trying to fit everything within the framework of copyright law³⁹. However, while the circumstances of types of IKS might be similar, sometimes the different nature of each type implies that approaches ought to be more specific to each type. There is need to separate issues because there are different types of IKS hence this thesis' concentration on the IMK system rather than addressing all aspects of IKS simultaneously.

The period covering the last decade has witnessed the increasing significance of the field of intellectual property protection given the rapid pace of technological developments. In what Gervais (2002) terms the challenge of the old and the new, IP law has faced new tasks that call for a continual reassessment of its role and relevance as a means of knowledge protection. The technological developments in the field of computer technology, biotechnology mean the challenge of the "new" and the re-emergence of IKS constitutes the challenge of the "old". The literature is dominated by the debates on the capacity or otherwise of IP to protect the "old" IKS (Gervais 2002). While this study partly pursues that tradition of assessing the applicability of IP law by devoting Chapter 7

in earlier decisions of this Court: see **Yumbulul v Reserve Bank of Australia** (1991) 21 I.P.R. 481 at 490 and **Milpururru v Indofurn Pty Ltd** (1994) 54 F.C.R. 240 at 247."

³⁸ Refer to Chapter 8 below

to the debate, it also contributes the arguments representing the views arising out of the field research among indigenous communities in Zimbabwe⁴⁰. In so doing it reassesses some of the arguments that have been presented in the current literature by adding the perspective from the realities obtaining on the ground.

The study also takes a critical look at the picture of IKS that is presented in the literature (Coombe 1998) and questions some of the commonly held images that seem to misrepresent prevailing reality. History is important because the present realities have been shaped by the encounter between knowledge systems over time. This study takes into account both the current and historical developments in respect of knowledge. The idea is to critique the idealised picture of Indigenous Peoples, which ignores the changes that have taken place over time.

Most current research and literature largely focus on what is currently affecting IKS without necessarily questioning the reasons behind the existence of that situation. However, scholars like van Caenegem (2002) and Whitt (1998) have begun to take to the deeper view that focuses on the contradictions of notions of knowledge development between the modern and the traditional systems and questioning the reasons behind the situation of IKS from an historical perspective. This also involves questioning science and its claims to truth and value neutrality. In addition, Coombe (1998) and Weidlich (2003) recognise the need to consider the cultural context in which the knowledge systems are located. This study takes this broader perspective and attempts to give a

³⁹ Paper presented by Mr G.H. Sibanda of ARIPO at the WIPO, UNESCO & DTI African Regional Consultative Forum on the Protection of Expressions of Folklore (Indigenous Technologies) March 1999

socio-historical explanation for the current situation of IKS. This reinforces the argument that runs through the study that in order to resolve the problems affecting IKS, it is necessary to understand why they are in that vulnerable situation. It transcends the examination of technical legal structures and also takes the non-legal aspects related to IKS into account. This study adds a more comprehensive dimension to the current problem by investigating the causes and an approach that is more comprehensive and focused on the realistic situation rather than idealised views about the indigenous communities. This study undertakes an explanation as to why IKS are vulnerable and argues that those issues are significant because they play a relevant role in the construction of a solution to the underlying problems.

Certain impressions and conceptions about Indigenous Peoples and IKS have been built up over time through the literature and research in different areas. Indeed the majority of international instruments seem to define Indigenous Peoples in a manner that appears to exclude most Africans in independent states (Date-Bah 1998)⁴¹. The notion of Indigenous Peoples has been linked to minority status of the groups, situations that are more common elsewhere but not in Africa. As a result these ideas have been put across as representative of the indigenous experience. This has led to some scholars questioning the relevance of the characterisation of Indigenous Peoples and their rights as far as African people who are largely in the majority in their indigenous territories and most achieved political self-determination after independence from colonial rule (Date-Bah *ibid.*). This study attempts to explore and highlight the “indigenous” phenomenon in Africa and demonstrate that the

⁴⁰ Refer to Chapter 8 demonstrating their views on IP law.

indigenous experience is common across the world as far as knowledge systems are concerned. The problems that indigenous communities in Australia face are connected to the issues faced by the people in Africa.

The subject of IKS is pursued in various subject areas including medical sociology and anthropological studies (Chavunduka 1994, Cunningham & Andrews 1998, Arnold 1998) environmental studies (Moyo 1995, Mohamed-Katerere 1996) and now IP law studies among others. Despite this common character in respect of the interest in IMK, each discipline has tended to take a particular approach that does not necessarily take into account the developments in the other. The result is that the problems identified in one subject area might be ignored in the other area. Scholars in respective areas will invariably tend to emphasise issues arising in their subject areas.

The danger with the divisional approach is that solutions proposed in one subject area might be inadequate because they fail to take into account the other problems that might exist in other areas. For example, the current legal debate identifies the exploitation of knowledge as the biggest threat to IMK. Environmentalists are concerned with the loss of biological diversity and the consequent loss of IMK to which biological diversity is relevant (Mahomed-Katerere 1996). The problem is that, in trying to solve the problems relating to knowledge piracy, legal scholars have tended to ignore the fact that there are other causes such as deforestation and environmental degradation that are contributory factors to the demise of IMK. Similarly legal literature does not adequately address the

⁴¹ For example, the UN Draft Declaration on the Rights of Indigenous Peoples (1993) and the ILO Convention No.169 of 1989.

sociological setting within which knowledge is located and therefore tends to focus on searching exclusively for legal tools to protect knowledge. However some of the problems that need attention arise from the sociological set up which even the law might not solve without changing other general aspects of society. Therefore this work highlights the impact of other factors that cause social erosion such as loss of language as part of the broader struggles between knowledge systems that contribute to the weakening of IMK systems. The idea is that the problems affecting local knowledge systems are multiple and strategies for solutions must take all of them into account and be more responsive to the realities on the ground. A more concerted approach to problem solving is advocated in this study. The current separation into distinct disciplines is criticised for being too narrow and lacking coherence.

The existence of local knowledge protection mechanisms is now acknowledged following the World Intellectual Property Organisation's (WIPO) findings in its Fact-Finding Missions in 1998-99 (WIPO Draft Report 2000). Kuruk (1999) and Drahos (2000) also state the view that local people had long valued knowledge and had therefore developed mechanisms for its protection and preservation. This study goes further and reinforces that idea by researching evidence from the field and detailing the knowledge protection mechanisms used by indigenous communities in Zimbabwe. Additionally it assesses the strengths and weaknesses of these mechanisms in light of both internal and external developments over the course of historical encounters with other knowledge systems. A key contribution is the identification of important principles that can be found in those local protection systems which might inform reformers about the needs of Indigenous

Peoples and the rationale behind their desire for protection. This is important in view of the criticisms that have been put forward against the use of Western legal philosophies in respect of IKS (Dutfield 1999). This demonstrates that the foundations for the protection of IKS can be located within the indigenous communities.

The methodology employed in research into matters arising in indigenous communities is normally informed by developments in anthropology and sociological studies. However, some methods normally applied in conventional social science research may be ill suited to the context of Indigenous Peoples (Dengu-Zvobgo et al 1996). When these methods are applied, researchers often encounter what they deem to be problems. These problems are usually interpreted as impediments to research in indigenous communities (Bentzon et al 1998). Yet in fact, as this study demonstrates in Chapter 3 the weakness lies in the methodologies that fail take into account the special features in indigenous communities. This study reinforces the idea that there is need to develop an indigenous-oriented methodology that takes into account the special features of the indigenous communities. It shows that legal research will need to develop and move away from employing the usual methodology that might be unsuitable to the indigenous context. To that end, this work devotes a whole chapter to explore the dynamics of research in indigenous communities and articulate aspects the indigenous methodology that were discovered and applied during the research process in local communities in Zimbabwe⁴². This should be a crucial contribution to future field research in indigenous communities.

⁴² Refer to Chapter 3 for the research methodologies in indigenous communities.

The ever-growing importance of knowledge as one of the vital structures of power in the global economy has been widely acknowledged (Strange 1995; Sell 1998). In her theory, Strange explores the important structures in international political economy and articulates that those that hold most knowledge and determine its content are likely to have the greatest power. Therefore knowledge is an important pillar of the international power structure⁴³. This study employs this theoretical perspective to explain the centrality of knowledge in the global economy and to show why the battles for knowledge have increased in recent years. It is also applied to explain the struggles over IKS between the research and corporate community on the one hand and the indigenous communities on the other. It also demonstrates the clash between Developing with most indigenous communities and Developed countries hosting the commercial interests in the global trading system. It lays foundation for the pursuit of the argument that the present the battle over the protection of IKS and the debate over whether or not IP law systems protect them is also a contest over who determines the content and validity of knowledge.

This study employs Strange's theory to assess and explain the global politics over the protection of knowledge⁴⁴. It presents the dimension that the protection of IKS is not an isolated matter but part of a global international political system of knowledge protection and power. This work therefore places the debate over the protection of IKS within the broader context of the international political economy. Indeed by employing Strange's theory, this study brings in the dimensions of global trade politics in knowledge protection and illustrates the wide range of factors that surround the area of protection of

⁴³ This theory is developed in greater detail in Chapter 3 below.

⁴⁴ Refer to Chapter 4 below

IKS. This is reinforced by consideration of critical work on the international political economy of the TRIPS Agreement and the World Trade Organisation in general⁴⁵. (Sell 1998, Ryan 1998)

Current literature emphasises the importance of the cultural aspects of IKS (Blakeney 1995, 1999; Coombe 1998, 2001; Weidlich 2003; Chavunduka 1994). However while these studies suggest the vital importance of the cultural aspects, there appears to be a suggestion of a low profile of the economic or commercial aspects of IKS in the eyes of the Indigenous Peoples (van Caenegem 2002). This study challenges this view and seeks to do that through investigations of the needs of the communities on the ground. While the cultural aspects of IKS are certainly important this study suggests that it is also significant to note that there have been important socio-cultural and economic transformations in indigenous communities over the course of time⁴⁶. In most African countries the Indigenous Peoples now participate in the mainstream of socio-political life and have to participate in the activities at local and national levels. These roles mean that their rights and duties are to be seen as part of that wider context together with the necessary changes that have taken place over time (Froemmer 2003). This thesis explores some of these developments and how they have implications for the protection of knowledge systems in indigenous communities placing the economic value of IKS at the centre of the struggles for protection.

⁴⁵ Refer to Chapter 7 for an assessment of the growth in the global dominance of IP law through the TRIPS Agreement.

A review of literature also shows that there has been a history of scientific research in the field of IMK in Zimbabwe (Froemmer 2003). The most dominant voices in the research have been scholars from the science and medicine as well as medical sociology (Gelfand 1956, 1983; Chavunduka 1994; Mpande 2000; Hostettmann et. al 1996). Their publications detail the work of the practitioners of indigenous medicine and the plant and animal species that have medicinal uses. Nonetheless this data has not been used in the legal debate regarding the protection of IMK. This study employs the available data in order to reflect the current state of IMK in Zimbabwe.

The motivation behind this study is to make a contribution to the debate over the protection of IKS in general and IMK in particular from an African perspective. It adds to the voices coming from the Sub-Saharan African region. It contributes to the dominant literature that pertains to Indigenous Peoples and knowledge in the Americas, Asia, New Zealand and Australia (Blakeney 1999; Tuhiwai-Smith 1999). It highlights the challenges faced by the communities and explores ways by which they can be resolved. Africa is beginning to wake up to the issues raised in this study and this study should add to that voice. Indigenous Peoples may have common characteristics, but it is also possible that some of the commonly held views might not apply universally. The study approach is to explore the history of knowledge encounters to explain the challenges currently arising and adopts a broader multi-disciplinary perspective as the necessary strategy to deal with the problems.

⁴⁶ Froemmer has however demonstrated that the impact of colonialism and urbanisation in indigenous communities has presented challenges to the traditional lifestyle and ways of relating to other people and

2.3 PERSPECTIVES ON THE GROWTH OF THE INDIGENOUS PEOPLES' MOVEMENT

2.3.1 THE INDIGENOUS PEOPLES MOVEMENT

This study is situated in the context of the general contemporary discourse on Indigenous Peoples' rights (Date-Bah 1998: 389, Kingsbury 1998: 414, Coombe 1998: 239). In the last twenty years the subject of Indigenous Peoples human rights has taken global prominence⁴⁷. Indigenous Peoples have become special subjects of interest in the contemporary international human rights regime. There is an emerging body of scholarship that argues that Indigenous Peoples rights have become part of customary international law, hence placing mandatory obligations on states to respect and protect such rights (Anaya 2001, Wissener 1999, Kingsbury 1998). The Indigenous Peoples have also taken various initiatives to protect their positions and recover the losses incurred during the colonial era. These efforts have been carried out at both national and international levels.

The advocacy for the rights of Indigenous Peoples has attracted the attention of major international non-governmental organisations and the issues have become of central concern to the United Nations (UN) and its agencies. The UN Working Group on

things (2003).

⁴⁷ However, the International Labour Organisation (ILO) was the first UN agency to tackle the issue of Indigenous Peoples' rights in 1957. In 1959 it promulgated the ILO Convention Concerning the Protection and Integration of Indigenous and Other Tribal and Semi-Tribal Populations in Independent Countries (No. 107) which entered in to force on the 2nd June 1959. In 1989 the ILO revised the 1959 convention by promulgating the ILO Convention Concerning Indigenous and Tribal Peoples in Independent Countries (No. 169). The underlying theme of Convention 169 is to allow Indigenous Peoples the right to live according to their own ways as distinct communities. It abandoned the predecessor's policy of integration and gave pre-eminence to the Indigenous Peoples' choices.

Indigenous Peoples (Working Group) established in 1982 for the purpose of drafting a Universal Declaration on the Rights of Indigenous Populations has been at the forefront of researching and advancing the cause of Indigenous Peoples. It has produced a Draft Declaration on the Rights of Indigenous Peoples (1993), which enunciates the rights of Indigenous Peoples world-wide. The Draft Declaration was agreed and put forward in 1993 leading to its adoption by the UN Sub-Commission for the Protection and Promotion of Human Rights. That Draft Declaration is a strong intergovernmental response to claims by Indigenous Peoples.

The UN also declared 1993 as the International Year for the Indigenous Peoples. By Resolution 48/163 the UN General Assembly proclaimed 1995-2004 as the Decade of the World's Indigenous People that is dedicated to the recognition and celebration of Indigenous Peoples' rights. The Convention on Biodiversity (1992) became the first official and global recognition of the rights of Indigenous Peoples to their knowledge and local resources. The Indigenous People's movement has grown in strength in such places as Australia, New Zealand and the Americas (Tuhiwai-Smith, 1999). Mugabe points out that from the levels of debates on issues of sustainable development to levels of global trade negotiations issues concerning the rights to indigenous knowledge have gained greater prominence (Mugabe 1998).

The protection of IKS is therefore a component of the larger movement and discourse concerning the rights of Indigenous People's world-wide. It is within this context that this study is conducted.

2.4 THE INDIGENOUS PROJECT AND CHALLENGES TO WESTERN ORIENTED THEORY

While the investigation of issues pertaining to Indigenous Peoples has been advocated by both indigenous and non-indigenous scholars and activists, the approach has been through instruments developed within the Western intellectual traditions (Whitt 1998). In the same way that IKS have been marginalised there has been little activity in the development of theory and methodology influenced by or arising from indigenous perspectives (Tuhiwai-Smith 1999). Such perspectives are however beginning to emerge with the growth of the Indigenous Peoples' movement and the rising profile of indigenous-related issues. The approach to research has been to investigate and discuss issues within the confines of established Western theory. Research in indigenous territories has been done through the lens of the West and interpretations have been informed by the same perspectives (Williams & Anaya 2001).

This approach has failed to contextualise the issues under investigation with the result that it has not produced appropriate results or at worst the research process has been viewed with suspicion by the researched communities and consequently it has met with stiff opposition (Tuhiwai-Smith, 1999). It has often led to looking at Indigenous Peoples from the perspectives of western intellectual traditions and application of theories and methodologies that are probably alien to their circumstances. Some scholars have criticised the arbitrary use of theory that is not suited to the conditions of the Indigenous

Peoples and have argued, for example, that economic theory can only have relevance to them if it is tailored to meet the specific contextual situations (Dutfield 1999; Boniface, 2000).

Dutfield (1999) has questioned the application of Western legal theory to issues that are patently and uniquely indigenous. The sceptical approach towards the application of Western theories and ideologies to issues of Indigenous Peoples has strong foundation. Parekh (1997) identifies the complicity of Christianity and Liberal theory in the colonisation of indigenous territories by Western countries. He argues that Locke and Mill advanced theoretical explanations and philosophical defences for colonialism in indigenous territories. For Locke, reason was the *differentia specifica* between man and other animals. Every person had a duty to live a rational way of life and that meant to be industrial, to fully exploit resources and to have the institution of private property which gave freedom and incentives to develop resources (Parekh 1997; Drahos 1996). However, because the indigenous way of life failed to meet the standards of the so-called rationale way of life, they could be colonised in order to educate and discipline them. The perceived lack of the institution of private property was seen as an indication that resources were free to be exploited by anyone. In the philosophers' eyes, Africa was seen as a continent without history and the backwardness of indigenous communities as a reason for others to civilize them (Parekh *ibid.*).

In addition, while other liberals like Diderot, Voltaire and Bentham may not have not explicitly endorsed colonialism it is quite clear that the dominant philosophies aided the

process of subjugation of the Indigenous Peoples through colonialism. In view of this, it is quite difficult and indeed contradictory to apply theories that were in fact hostile to the Indigenous Peoples' circumstances. These are the same theoretical expositions that influenced the process and structures against which the Indigenous Peoples' are still struggling to overcome (Tuhiwai-Smith, 1999). According to Bernasconi cited in Parekh (1997), it is necessary for the academy to be more sensitive to the exclusionary impact of the West's construction of a privileged discourse of philosophy. The approach calls for the creation of spaces for the enumeration of theories and philosophies from an indigenous perspective and not to continue to discuss Indigenous People's issues and claims within the Western philosophical discourse that may be unsympathetic to their concerns.

The culturally sensitive approach to theory and research is a critical and counter-hegemonic approach that offers an opportunity to liberate and create space for the viewpoint of the Indigenous Peoples. The approach draws on the experiences of Indigenous Peoples and in that respect may be classified as a form of Grounded theory (Hellum 1999; Bentzon et al 1998). It is essential to hypothesize and seek explanations for the growth of the Indigenous Peoples movement and to make propositions on the justifications for these claims. From a methodological perspective, it is necessary to devise methods that suit and enable research within the context of communities.

2.4.1 EMERGING APPROACHES: DEVELOPING INDIGENOUS-ORIENTED THEORY

A new breed of scholarship that seeks to develop theory and research from within the context of Indigenous People's environment has grown in recent times (Agrawal 2002). The Indigenous Project involves the emergence of both indigenous and non-indigenous scholars and researchers opening up "spaces of hope and resistance" (Tuhiwai-Smith, 1999: 4). It seeks to tailor theory and research that identifies the pressing issues within that environment and is more sympathetic to its requirements. It also embodies a critical approach to law from a cultural perspective (Coombe, 1998). This study adopts that approach and through the framework of the Struggle Thesis seeks to develop a theoretical explanation of the issues at hand and consequently design a positively purposive framework. It takes a critical approach to research and opens spaces for the articulation and application of other hitherto marginalised voices.

The approach taken in this study is based on the idea that theory and research have an instrumental value and purpose. It is located within what has been called the "Indigenous Project" – collectivizing a revival of the concerns of Indigenous Peoples with an aim to expose and explain the problems as well as designing the strategies for future development (Whitt 1998). The approach takes is influenced by the idea that research is not an innocent project but is invariably geared towards certain goals (Tuhiwai-Smith, 1999). In this study the view is that research must aim to make a positive difference for the researched people and for that reason the design and implementation must take into account all aspects of the researched that may otherwise be excluded in conventional approaches. This approach takes influence from the ideas of Said who states that,

“The intellectual’s representations are always tied to and ought to remain an organic part of an ongoing experience in society: of the poor, the disadvantaged, the voiceless, the unrepresented, the powerless” (Said 1984: 84).

This study pursues the theme of inquiring into the contemporary response to the forces that have historically thwarted the recognition of Indigenous Peoples’ claims and rights in respect of their knowledge systems.

2.4.2 ADVANCING FROM THE PERIPHERY TO THE CENTRE

The Indigenous Peoples’ movement and indigenist scholarship brings issues pertaining to indigenous communities from the periphery to the core of the human rights discourse. The context is characterized by claims for emancipation and reclamation of things lost through dispossession in colonial era that was characterized by political, economic and cultural imperialism. As Coombe points out,

“In the late twentieth century, we see renewed struggles by formerly (and continually) subjugated groups – particularly by Indigenous Peoples – as they attempt legally (and illegally) to reclaim the insignia of their alterity and end the continuing commodification of their names, images, and motifs in mass markets” (1998: 33).

The study locates the claims for rights over indigenous knowledge within this wider context. Scholars have urged an approach that closely attends to the context of Indigenous Peoples claims (Coombe, 1998: 230, Said 1984). In line with the goal of constructing a theoretical approach and framework from the context, this study attempts to develop an explanation for the situation of Indigenous Peoples, their knowledge systems and the justification for claims for protection that have been advanced in recent times.

The “Struggle Thesis” used in this study has a strong explanatory influence in the investigation of issues in this study⁴⁸. It offers an historical context that is necessary to understand the claims of Indigenous Peoples in respect of their knowledge systems. The consideration of the general context also enables an opportunity to seek solutions beyond the strict confines of law. The approach is therefore critical not only of the contemporary regime of legal protection but generally of law as a single solution to the problems. It provides room for broader approach to the problems facing Indigenous Peoples’ in relation to their knowledge systems.

2.4.3 CHALLENGING HISTORY: OPENING SPACES FOR ALTERNATIVE VOICES

This approach also challenges colonial and imperial history and introduces perspectives of the marginalised. It rejects the historical tales of triumphant modernisation and clears spaces for alternative voices. In that way it questions the grand stories of the triumph of

the West, contests the unquestioned benefits of colonial and neo-colonial enterprises, challenges the advancement and hegemony of Western science, law and generally the moral superiority of the West (Cunningham and Andrews 1998). It opens up avenues for the alternatives and advocates the acceptance of difference, awareness of plural systems beyond the usual grand narratives of history (Arnold 1988).

The situation of Indigenous Peoples may be paralleled to that of other marginalised groups within society, e.g. women. The Indigenous Peoples' movement can be interpreted as a challenge from the margins arising from the problems of applying the dominant western-oriented discourse for everything in the academy (Miyoshi 1997). There is a need to break out of that dominant discourse. The approach borrows from critical and feminist approaches to theory and research to inform the indigenous perspective. Feminist theory, through its different strands has developed in response to the need to emancipate women from the marginal position in society (Bentzon *et al* 1998). Whatever the differences or diverse strands it took in time and space the underlying theme was a fight for the rights of women. Indigenist scholars can take lessons from that movement and adapt them to the situation of Indigenous Peoples (Tuhiwai Smith 1999). Generally feminist and related scholarship sought to show how established theory could be used to undermine the position of the various groups they stood for. For similar reasons this study takes a critical approach towards conventional theory and seeks to advocate for the development of indigenist theory and methodology that develops from within the context of Indigenous Peoples⁴⁹.

⁴⁸ The Struggle Thesis is covered in greater detail in chapters 4 and 5 below.

⁴⁹ Refer to Chapter 3 below.

This approach privileges the Indigenous Peoples' voice and takes a critical stance towards the dominant schools of thought. For example, Western liberal theory privileges individualism and rationality – ideas that might not necessarily fit in within the context of the indigenous universe. In support of this critical approach, Ghai advises of the danger that “legal theories elaborated for the developed countries will be used to try to explain the social reality of, and prescribe policies for, Third world countries” (Ghai 1991: 9) This is bound to cause incompatibilities and distortions.

2.4.4 CRITICAL PERSPECTIVES ON THE ROLE OF LAW

The role of law in indigenous communities is also an important theme in this study. According to Darian-Smith despite the picture of homogeneity and open communication painted by the rhetoric on the globalisation of law, there still exist some stereotypical images of the West and others which entrench colonial distinctions and "asymmetric power relations" between different groups of people in various parts of the world (Darian-Smith 2002: 294). Law cannot be taken as an "ahistorical and apolitical abstraction" (ibid. at 307). There is a strong connection between law and power. In this context, it cannot be simply taken as an instrument to deliver the poor indigenous communities from a state of anarchy but an instrument to be used by the powerful to assert their power and control the processes by which their power can be enhanced. The emergence of new forms of imperialism and colonisation as the Western institutions such as transnational companies and research institutes exploit technological resources,

access cheap labour and dominate economic space legitimised by the "global legal practices" must not be underestimated (ibid. at 294). This study takes the approach that the use and globalisation of IP law cannot be removed from the historical context in which law has been at the centre of defining power relations between the indigenous communities and the occupant communities⁵⁰.

Contemporary African communities are generally characterized by plural legal systems (Ghai, 1991, Boniface, 2000). The formal laws that were introduced by the settler communities co-exist with the informal local norms, customs and laws that have developed internally in indigenous communities through generations. The co-existence of the plural legal systems has been characterized by friction during the course of time (Bentzon, et al. 1998). Also, according to Date-Bah, African countries "inherited pluralistic legal systems, with the common law jostling cheek by jowl with various customary legal systems" (Date-Bah, 1998: 396).

The foreign laws that were introduced by the colonial powers became the dominant legal norms. The foreign laws constitute the formal legal systems while most of the local laws fall in the informal category, often interpreted through the lens of the former and by personnel trained in those formal systems. This study takes a critical look at the formal legal systems and the role of law in alienating IKS. Darian-Smith notes that,

"the power of believing in the moral superiority of one perspective over the other essentialises legal understandings and makes it impossible to envision and analyse

⁵⁰ Refer to Chapter 4 where the Struggle Thesis is discussed in detail

counter-hegemonic legal impulses issuing from the re-articulation of legal systems across international and transnational terrains (sic.)" (200: 295)⁵¹.

The "legal impulses" represent the alternative voices articulating the understanding of law and society within the indigenous territories. This work attempts to analyze the law from the perspective of the Indigenous Peoples and to explore the possibilities for these alternative legal voices from within the indigenous societies⁵². This approach is also useful in the analysis of the applicability of IP laws to IKS in indigenous communities. It is also necessary for purposes of critiquing the role of the law in the relationships between knowledge systems and their respective holders⁵³. The objective is to establish the view that a broader approach is necessary to solve the problems at hand and challenge the present approaches that restrict the debate to technical legal aspects.

Although there has emerged scholarship that analyses the phenomenon of the globalisation of law (Coombe 1998; Nader 1999), Darian-Smith notes that there is a shortcoming in that scholars often fail to,

"move beyond Western legal concepts and categories that prevent them from fully analysing the very processes of legal globalisation and the implications of power" (2002: 295).

⁵¹ Refer to the Struggle Thesis in Chapter 4 for more detail on this struggle for superiority.

⁵² Refer to Chapter 8 where the fieldwork is discussed.

⁵³ Refer to Chapter 7 where the debate is reviewed and discussed.

The use of 18th and 19th Century Western theorists to endorse the moral supremacy of Western law and institutions is also noted (Darian Smith *ibid.*). Historically, law has been projected as the marker on which cultural difference is categorised and measured. It creates the perpetuation of Western legal supremacy assigning the tag of inferiority to the systems that fail to measure up to its standards. It is vital to note that modern Western law developed within a system of colonial expansion and was applied to assert power in both political and moral terms by marking the West as progressive and civilised and the others as barbaric and primitive (Fitzpatrick 1992). Law was therefore an instrument of domination and marginalised the local customary legal systems. This in itself was a process of legal universalisation (Santos 1995). The idea of the supremacy of Western legal systems over the local has remained entrenched in the present systems and practices especially in the IP law arena where the adoption of Western-style IP laws is seen as a measure of legal advancement with the Westerners seen as being responsible for introducing new ideas into the local communities (Darian Smith 2002). Consequently, the myths that indigenous are barbaric and uncivilised remains in place. This study proceeds on the basis that it is necessary to be "sensitive to historically informed and culturally specific meaning embodied in different legal systems" (Darian-Smith 2002: 302).

2.5 CONCLUSION

This chapter has demonstrated two principal elements about the subject of study. Firstly, the general review shows that this is a subject that has assumed greater importance and interest in recent years. While there has been greater focus on assessing the applicability of IP law to IKS, this study takes a wider approach that seeks to explore and understand

the cause of the problems facing IKS. It urges an approach that develops solutions that address the cause and present reality of the people's situation. The limited research and literature in respect of Africa also justifies the need to undertake further research in this area.

The chapter has also demonstrated that this study is conducted within the context of the increasingly significant Indigenous Peoples' movement. The emerging indigenist school of thought is necessary for creating spaces for alternative voices. Consequently, it rejects confinement within mainstream perspectives but instead it involves the opening up of spaces for new voices hitherto unaccounted for in the mainstream literature. It supports the need to conduct field research. The growth of interest and claims of the Indigenous Peoples can best be understood as part of the wider movement involving the ascendancy of Indigenous Peoples to central positions both globally and nationally. The chapter has therefore included dimensions of the opening of spaces for the Indigenous Peoples and how this is important to understanding the needs of the communities in relation to knowledge.

CHAPTER 3

METHODOLOGICAL ASPECTS OF INDIGENOUS RESEARCH

3.1 INTRODUCTION

This chapter presents aspects of methodological approach to research in indigenous communities that were applied in this study. Methodology generally refers to a theory or analysis of how research should be done in a particular field. Methods refer to actual techniques of gathering data and they are often shaped by the methodology (Harding 1987: 2). Methodology helps to frame the strategy, questions and instruments to be employed in the research process. At the outset given the indigenist perspectives influencing this study, it was observed that it was necessary to tailor the methodology and methods according to the context of the indigenous communities where research was conducted.

The research methodologies employed in this study reflect the commitment to locate this study within the context of the Indigenous Peoples' environment and to remodel the image of research among the Indigenous Peoples. Indigenous methodologies comprise a mixture of the contemporary methodological approaches emerging from the western tradition and the local practices that are unique to Indigenous Peoples. It is reflective of both the training that researchers receive in the academy and sensitivity to Indigenous Peoples' concerns and practices. This chapter highlights the significant aspects of

research methodology and methods of data gathering among indigenous communities that were applied in this study.

The articulation of key aspects of research methodology in indigenous communities becomes one of the useful aspects of this study. These aspects have a bearing not only on the research process but also on the subject matter of this study since research is the crucial and problematic nexus between the different knowledge systems. Research in indigenous communities is implicated in the problems that affect IKS in their dialectic relationship with WKS. This point will become clear in the discussion that highlights the historical aspects of research in indigenous communities and later in this study when the role of research as the crucial link between IMK and WSK is assessed⁵⁴.

Thus it is important to note that the methodology of studying IKS is itself a subject of research (Bhola 2003). That explains this chapter's focus on presenting the approaches that informed research process in this study. It should be useful to future researchers who intend to undertake research in indigenous communities. The importance of the emerging approaches that privilege the indigenous viewpoint is that they bring to the forefront certain aspects that would otherwise be ignored or taken as impediments in the application of conventional legal research methods. The experiences of this research process should add to the fledgling indigenist research approaches advocated by Indigenous Peoples and indigenous researchers (Churchill 1993). Indigenism is rooted in the alternative conceptions of world views and value systems and creates space for indigenous voices (Annette Jaimes 1995)

3.2 HISTORICAL ASPECTS SHAPING RESEARCH IN INDIGENOUS COMMUNITIES

The formulation and use of indigenous centred methodologies and methods is best understood from an historical perspective because it is factors etched in the history of research that inform Indigenous Peoples' views and attitudes to research. It is against that background that the emerging approaches seek to remodel the image of research. Research in indigenous communities has been a continuous exercise but it became more defined with the entry of travellers, explorers and settler communities in the indigenous territories as the latter sought to know the locals that they encountered and the areas in which they settled. The non-indigenous people who were mainly from Western Europe made observations and recordings of the indigenous inhabitants in their attempts to understand and portray the indigenous world-view. Historically research in indigenous communities is about how knowledge was gathered, classified and represented through the lens of the West both to the West and back to the indigenous communities. As far as the Indigenous Peoples were concerned there could be no difference between scientific research and visits by travellers, missionaries and adventurers (Tuhiwai-Smith 1999: 3). It is the story of the outside observer looking in and trying to come to terms with the indigenous world-view.

A key point is that Indigenous Peoples generally abhor and distrust research (Tuhiwai-Smith, 1999). The cynicism is brought about by the history of research in their

⁵⁴ Refer to chapter 7 for greater detail on this aspect.

communities that generally portrayed unfavourable aspects of Indigenous Peoples. To the extent that research has been generally negative, it is seen by the Indigenous Peoples as being “exploitative and disrespectful” (ibid. at 118). As a result of the scepticism built up over the centuries of research, it is imperative when devising methodologies to incorporate explanatory details of the research benefits to the communities. This brings credibility to the research process in the eyes of the indigenous communities thereby facilitating access to communities and information. The perception is that research is a field of the elite, educated and powerful and is therefore empowering to the researcher but disempowering to those who are being researched. It does not mean that outside researchers were always unethical and exploitative but rather it is just that the general process and presentation of products of research gave rise to the perception that research was merely extractive and not beneficial to the researched.

As indicated earlier in this chapter research in indigenous communities is hardly a new phenomenon. The first encounters between indigenous and non-indigenous people presented the first opportunities to do research in indigenous communities. In that sense, travellers and adventurers can be classified as perhaps the first non-indigenous researchers in indigenous communities. It was through their recorded observations from their encounters and interactions with the Indigenous Peoples that they provided an outlet for information about their way of life back to the audience in Europe. The significant point here is that their observations were informed by their location within the perspective of the travellers and observer’s context. As time passed, these informal systems of information gathering and dissemination became formalised and

institutionalised. According to Tuhiwai-Smith with time “the more formal these systems became, the more authoritative and influential they were” (1999: 79). Despite their deeply ethnocentric character, these representations steadily became factual representations of the Indigenous Peoples. The result is that “travellers’ tales and other anecdotal ways of representing the Indigenous Peoples have contributed to the general impressions and the milieu of ideas that have informed Western knowledge and western constructions of the Other” (Tuhiwai-Smith 1999: 78).

In addition, while research was conducted in indigenous communities, it was the narrative of the Western researcher that was dominant while that of the local researchers was suppressed⁵⁵. The observations that were relayed back to Europe and disseminated in the academy represented the perspectives of the non-indigenous researchers. The local aspects that were seen by the non-indigenous peoples were taken to be “discoveries” and local places and objects were thus renamed. Arguably, the renaming of indigenous places and objects reflects attempts to identify, conceptualise and understand local phenomena through the lens of the observer. The relegation of the local names also reflects the suppression of the local voice. So for example, the impressive waterfall along the River Zambezi was renamed the Victoria Falls⁵⁶, thereby relegating the local name *Mosi-a-Tunya* with which it was called by the local Tonga inhabitants. In addition, the local people who assisted travellers and adventurers with knowledge and bridging the language and cultural barriers were hardly acknowledged. The observer became the “expert” on

⁵⁵ Often the Western researchers were assisted by locals as interpreters and as pointers to aspects of interest. However their voices were hardly heard beyond that stage regardless of how knowledgeable they were on the subject of research. The researchers they assisted became experts of the indigenous way of life.

indigenous way of life, geography and culture thereby obliterating the fact that among the Indigenous Peoples there were experts who were more knowledgeable. The story of the observer that was recorded in writing became authoritative while the oral narratives of the Indigenous Peoples were barely recognised.

Additionally, research in indigenous communities has been tainted by its implication in the colonial project. It is hard, within the general scheme of things, to disconnect research from the colonial enterprise because the early researchers and disseminators of information about the Indigenous Peoples were also involved in one way or another in the colonial systems. The point is made that the early “researchers” performed multiple roles. They were missionaries, traders, explorers, politicians, scientists, military personnel, etc. For example it was hard to separate expropriation of land from land surveys because in the eyes of the indigenous the surveyors were also expropriators. A parallel can be drawn in the present context where it is difficult to distinguish between genuine medical research and bio-prospecting as they both tend to be seen in the same light as exploitative by the Indigenous Peoples whose experience of research has not been good.

Therefore when scientists seek blood samples in remote communities for medical purposes, the experience of the abuse suffered by their ancestors makes the Indigenous Peoples sceptical and resistant. Early missionaries produced harsh accounts of indigenous religions and cultures (Chavunduka 1994). There was thus a perceived link between research and imperialism as the consultations and representations were carried out by

⁵⁶ It was so named by David Livingstone the adventurer and explorer in honour of Queen Victoria of England.

people who participated in their colonisation. In particular Western science and medical research were implicated in the colonial project as they sought to deal with human and animal diseases thereby opening easy access to settle in indigenous territories and perform industrial and agricultural activities (Cunningham and Andrews, 1998).

This account of the history of research is significant in the re-formulation of research methodologies in indigenous communities because it was the early research that shaped the ways in which Indigenous Peoples respond to research and the methodologies normally applied to current research. The past research activities were seen as highly disrespectful of their cultures and traditions and these negative aspects have built up some resistance to research. It is not that the Indigenous Peoples are unwilling to research or that their apparent hostility impedes research but the hostile image of research and inapplicable methods that make research appear difficult and invasive.

It is this background that shapes the movement towards the formulation of new methodologies of carrying out research in indigenous communities. It shapes the strategies of recasting methodologies in order to recover the lost voices and visions in order that the things that need to be done in indigenous communities are seen not as impediments but facilitative of research (Bujo 2001).

3.3 EMERGING METHODOLOGIES FOR RESEARCH IN INDIGENOUS COMMUNITIES

Indigenous research methodology therefore aims to tell the untold stories of the researched people (Tuhiwai-Smith 1999). The objective is to privilege the lost voices and visions of the Indigenous Peoples (Yankah 2003). Current trends in indigenous research address the needs of the Indigenous Peoples and try to challenge the dominant narratives told by the early researchers. Indeed there is a tradition of research among Indigenous Peoples themselves as they shared medical, agricultural, artistic information and products in their communities. People learnt from other communities in order to improve their own knowledge and way of life. During the colonial era western education was also manipulated as a tool of coercing the Indigenous Peoples to learn, adapt and conform to the new, western ways of knowing thus distancing them from their local systems (Chavunduka 1994). Researchers also sought to know more about the indigenous way of life and systems of knowledge (Gelfand et al. 1983). However, conflicts over the ethical foundations of early research brought tensions between Indigenous Peoples and researchers. The key to unlocking this resistance is to recast research in ways that afford space to the voices and practices of the Indigenous Peoples. This begins with recasting the methodologies of research in order to open up access routes to information (Shumaker 2001).

Researchers in indigenous communities have often encountered aspects that they might perceive as “difficulties” of conducting research in indigenous communities. On the other hand, the Indigenous Peoples have often seen research itself as the problem because of the way in which it is conducted that were not amenable to their context. The proper approach is to ensure that research is conducted in ways that ensure that the Indigenous

Peoples' views count. There are norms, codes and protocols unique to indigenous communities that need to be followed by those that enter communities for purposes of research. Therefore, from the indigenous perspective research methodologies must from the outset be carefully tailored to suit the features of the indigenous communities. Instead of being seen as obstacles, when properly followed, those features must be considered as facilitative of research.

The growing interest in issues pertaining to Indigenous Peoples in recent years has attracted interest from indigenous scholars who have become more actively involved in articulating the indigenous story. In addition to outside researchers there has been a growing trend of indigenous researchers. This emerging trend “privileges indigenous concerns, indigenous practices and indigenous participation as researchers and researched” (Tuhiwai-Smith 1999: 117). It is both a healing and recovery process that puts the indigenous codes and practices at the centre of research methodology. The need to restore the credibility of research is at the forefront of the indigenous research agenda. The methodologies incorporate explanatory details regarding how research might benefit the Indigenous Peoples. This is essential because the subject area of this study, IMK has been contentious and this has increased due to the renewed research interests of scientific and pharmaceutical entities. It is necessary to learn and implement cultural ethics and codes of conduct in research and to see these as facilitative aspects of research. Research is expected to be ethical, respectful and enabling (Posey & Dutfield 1996). It must involve consultation, open discussion, shared decision making and other aspects that are part of the indigenous way of life. As more activity takes place these new approaches are

increasingly developing⁵⁷. As one author put it “the best way to understand a community’s traditional knowledge is to live with it” (Kongolo 2000: 357).

The fact that indigenous research methodologies privilege the indigenous elements is by no means an indication that mainstream social science methodologies are totally excluded (Bujo 2001). On the contrary, they are part of the holistic methodologies particularly where interdisciplinary issues are involved. In effect indigenous research faces the double tasks of conforming to the research models that are predominant in the academy and also meeting the criteria of the indigenous perspective (Tuhiwai-Smith 1999). It can be difficult to reconcile these views but reflexivity is required to overcome the challenges. A researcher with experience of both the Western academy and the indigenous world may be in a relatively better position but will still have to be alert and able to handle both sides without necessarily affecting the other negatively.

Notably, not all indigenous researchers are able to relate to the indigenous world view because many Indigenous Peoples have been trained within the western intellectual systems and live in communities far removed from the traditional set up. In fact more than the non-indigenous researcher coming into indigenous communities, they may even abhor the indigenous ways in favour of the Western ways in which they were schooled. An indigenous research who enters the community but fails to observe protocol may even

⁵⁷ Smith refers to the development of the *Kaupapa Maori* research methodology in New Zealand through the International Research Institute for Maori and Indigenous Education at the University of Auckland between the 1980s and 1990s. Both Indigenous and Non-Indigenous researchers are given training in the research methods. It was however, not easy to establish this in the academy illustrating the ever-present “contestable nature of knowledge” (Tuhiwai-Smith 1999: 133). She also cites the case of the Centre for Aboriginal Studies at Curtin University, Western Australia which offers a programme meant to address the

face greater resentment that a non-indigenous person whom the communities might forgive for not mastering all the details. As Bhola aptly puts it many Africans are “children of the West ... They are Westernised Africans living in non-Western places ... they have internalised the values, norms and criteria of the West and will therefore be judging ... Indigenous Knowledge with western visions, western assumptions and western criteria” (Bhola 2003: 6). It is precisely for this reason that educationists and others must attempt to cultivate the indigenous ways within the formal education systems to promote appreciation of local aspects by the people. It is also for this reason that indigenous methodologies strive to reformulate the mindset by unearthing the local ways that can be used to promote effective research.

The strategy would be to adopt a flexible and open-ended approach so that the methods are informed by and devised according to the unfolding realities on the ground. This might also be referred to as pursuing grounded approach to research in the sense that it seeks to develop theory from people’s experiences on the ground (Bentzon et al. 1999).

In summary, it is important that the historical aspects of research be understood as they inform the manner in which Indigenous Peoples respond to research. In that context, appropriate methodologies and methods can be formulated to conduct effective research.

There are two points that can be deciphered from this discussion:

needs of indigenous students working with indigenous communities. A number of African and Oriental studies departments have been established in major Anglo-American universities in the post-War period.

1. Research has been a site of struggle since the encounter between indigenous and non-indigenous people. The negative ways in which research was used and the presentation arising from research with regards to the Indigenous Peoples have caused research to be viewed with suspicion and subject to resistance. It is necessary to recast the image of research by also telling the indigenous story;
2. The ways by which research has been carried out have historically been foreign and hostile to the Indigenous Peoples to the extent that invariably researchers enter indigenous territories expecting to meet difficulties. However if correct channels are followed it should open up access to research in indigenous communities.

Given the history in which research is predominantly characterised as exploitative, it should be modeled as a purposive exercise conducted with the aim of making a positive difference to the researched community. As the President of South Africa, Thabo Mbeki pointed out in 1999,

“We must proceed with on going African studies and research into our creative and cultural past and rekindle interest in African knowledge systems, so as to make younger generations aware of the achievements emanating from our continent and impress upon them their inherent creativity, that is, setting the stage for new developments and discoveries. (sic.)”⁵⁸.

⁵⁸ Speech at a Conference on Education in South Africa (1999)

It may be sentimental but it illustrates of the need to research and to do so in a way that yields data from the communities without undermining the socio-cultural foundations of the society. Research in indigenous communities is a sensitive subject that needs to be handled very carefully. In many ways research has been seen as both exploitative and disempowering. Indeed “... historically indigenous peoples have not seen the positive benefits of research.” (Tuhiwai-Smith, 1999: 10).

Posey and Dutfield (1996) also identified that it is necessary to understand the ethics that are important for carrying out research in the communities. Some important guiding aspects include:

- i. Acknowledging indigenous sources
- ii. Making indigenous sources co- or principal authors where appropriate
- iii. Informing readers that the information was given freely and authorised for publication by indigenous sources
- iv. To inform readers must observe ethics and share benefits with sources if they use the data in their secondary research
- v. Communicating and seeking informed permission
- vi. Recognising the Indigenous Peoples’ right to be informed

These methodological aspects informed the research process for this study among the local communities in Zimbabwe. Having articulated the background to the research and the aspects of methodology that played a crucial role in mapping out the research strategy it is now appropriate to describe the research process as it happened on the ground. The

next part of this chapter chronicles the approach used to carry out research in communities in Zimbabwe.

3.4 RESEARCH IN THE INDIGENOUS COMMUNITIES IN ZIMBABWE

3.4.1 SAMPLING AND AREA OF STUDY

The greater part of the field research among the indigenous communities was carried out in the south-central part of Zimbabwe more specifically in the *Wedza* and *Chikomba* districts of Mashonaland. It was also conducted in the urban areas in Harare and Marondera. These areas are predominant populated by the Shona-speaking indigenous communities of Zimbabwe. However urban areas host different language and tribal groups and there was no discrimination according to language or tribe during the research process. Harare is the capital city of Zimbabwe with a diverse population and many IMPs have settled in the urban areas due to the large and liquid market for their practice. *Wedza* and *Chikomba* are predominantly rural areas where except a few commercial farming communities the rest of the population is indigenous to Zimbabwe as defined in this study. In those communities the people still live traditional lifestyles although they are by no means insulated from the influences of the urban way of life given the presence of growth centres such as *Wedza* and *Sadza*. The people were placed in these communal areas during the colonial period when they made way for the settler community.

These areas were chosen to represent the research universe of both the urban and rural based Indigenous Peoples. The main aims of the field research were:

- i. to investigate the existence and nature of IMK in Zimbabwe,
- ii. to explore the existence of systems by which knowledge is stored, distributed and protected across communities and generations,
- iii. to find out about the problems faced by Indigenous communities in relation to IMK systems,
- iv. to investigate their views about research into IMK systems and assess the adequacy of legal protection of IMK systems.

In addition to IMPs and community elders information was also sought from general members of the public in both rural and urban areas. The Zimbabwe National Traditional Healers Association (ZINATHA) which represents IMPs in Zimbabwe at the national level was the main point of reference and provided the spring-board for the identification of interviewees particularly in urban areas⁵⁹. It keeps a database of at least 55 000 registered members across the country and lists their special areas of practice. The researcher picked listed practitioners at random and those that responded to initial inquiries were contacted. ZINATHA officials also referred the researcher to IMPs who frequently visited their office during the period of research. Others were difficult to find because they had moved or were practising in another part of the country at the time of the research. The other groups that were interviewed include scientists, modern medical doctors, officials of Non-governmental organisations (NGOs) and state departments that are working in this area.

The “snow-balling” approach was used to approach and contact other people working in the research area. It was quite common after contacting an individual, to be referred to another in the field with an interest in or information about the research area. Additionally due to the topical nature of the subject and related topics such as biotechnology and the law, environmental protection workshops and symposiums that were being conducted during the research period also provided a good avenue to meet with other people actively involved in the research area. The researcher was invited to present a paper at one workshop and the feedback received provided useful information on the area being researched. Indeed this proved that “sometimes these unplanned data capture exercises can be among the most fruitful of the research period” (Bentzon, et al. 1998).

The major data collection tool employed in field research was oral interviewing. A series of interviews with people from different sectors within the indigenous communities were carried out using semi- and unstructured questionnaires that were administered directly by the researcher. Essentially, a flexible approach was employed during the interviews.

In addition the other data collection tools employed were Archival and Documentary review. The National Archives in Zimbabwe and the national newspaper archives yielded information on the historical aspects of IKS and their dialectic relationship with WKS. They also showed the proceedings of conferences and workshops at which opinions were gathered and disseminated. It provided useful data on the state of IMK in Zimbabwe and

⁵⁹ The full list of interviewees and dates of interviews is in *Appendix 4*.

people's attitudes to it. The researcher also visited the National Herbarium and National Botanical Gardens in Harare where observations were made on the impact of research into the IMK system. In those places medicinal plants are named, collected and recorded and they are also conserved *ex situ*. The National Botanical Gardens within central Harare now hosts a diverse mixture of indigenous plants of medicinal value which have been collected over the years.

The researcher also visited the *Mbare Musika* market where medicinal plants, roots, herbs, etc are sold to the public. *Mbare Musika* is the main market, which is in the centre of the townships where the majority of the urbanised indigenous population lives in Harare. It was useful to observe and converse with the traders and the customers who were buying the medicines at the open market. That also gave a sense of how economically valuable the medicines and knowledge attached thereto is becoming as the Indigenous Peoples struggle to survive in the mainstream economy.

Therefore interviews, archival and documentary reviews, observation, workshop participation and discussions were the major tools that were used to gather data in this study.

3.4.2 PHASE I: EXPLORATION AND FAMILIARISATION

During this phase (March – April 2001) the researcher visited communities in *Wedza* and *Chikomba* and identified holders and practitioners of IMK and elders to be interviewed at

a later stage. This was a familiarisation and introduction stage when contacts were established. The major point of reference was the representative body of IMPs, ZINATHA whose head office is located in Harare. The Chief Secretary of ZINATHA, Sekuru Peter Mutandi Sibanda⁶⁰ was the main contact person. This was the first stage of negotiating entry into the communities. The subject of the study was introduced with explanations of the reasons for carrying out the research. Sekuru Sibanda wanted to know the purpose of the research and how it would benefit the communities given the background of many researchers in various fields who were coming to do the same type of research. The researcher was informed that an increasing number of researchers were coming to do research in that particular area but they were now suspecting that they were involved in the extraction of their knowledge for commercial purposes but with no reward to the local people who supplied the information.

It was indicated that members of the association were complaining about researchers coming to “steal” their knowledge. He also indicated that some people come under the guise of seeking to learn the local languages and cultures but as they lived with the communities, they asked questions about plant and herbal remedies and in the process collected information and never returned to show the results of their research. It became apparent that there was no distinction between scientific, legal, anthropological or other type of research. In the eyes of the local people research just meant one thing – outsiders coming to take information for commercial use.

⁶⁰ Sadly Sekuru Sibanda, a major source of information passed away before this study was completed. He was the voice of the association and was quite knowledgeable about Intellectual Property issues and often

Against this background, in order to reduce the risks of facing defensive mechanisms it was imperative to explain that although the study was legal and for academic purposes the circulation of that work could be useful to highlight the problems and issues of concern to the indigenous communities including the methods by which research was being conducted in the areas. It was also explained that the study was not particularly concerned with the specific content of their medical knowledge and was therefore perceived as a form of biological and knowledge piracy. The researcher provided a letter to explain the aims and purposes of the research (*Appendix 1*). As an officer immediately concerned with the issues, Sekuru Sibanda was more familiar with the problems and the related aspects of intellectual property rights. ZINATHA also provided the researcher with a letter to take and show potential interviewees as a form of consent given by the representative body⁶¹. Significantly, the decision to give the researcher this letter was not unilateral but Sekuru Sibanda but had to consult other members of the executive and the researcher only got the letter after some days during which consultations were made.

The researcher had also met the president of ZINATHA, Professor Gordon Chavunduka who is a foremost authority in issues relating to IMK in Zimbabwe and he was very interested in the research and gave his endorsement and encouragement for the study. In addition the fact that the researcher can be identified as a member of the indigenous community of Zimbabwe and could speak the *Shona* language and understood the culture and protocols was important in gaining trust and facilitating access⁶². The letter supplied

spoke at local conferences on the need to protect the knowledge of Indigenous Peoples from exploitation.

⁶¹ Copy of letter available on file.

⁶² One interviewee, Sekuru Chikomo even commented on the fact that the researcher was studying in the United Kingdom and was therefore able to put through their views than had been the case before where

by ZINATHA was useful as it acted as a seal of approval of the study by the major representative body. It became the passport for entry into the communities during the interview stage.

There were also contacts with individuals and bodies working in the field. This approach opened avenues for future communication and more detailed research. More significantly, in light of the warm reception and invitations for further research this process did much to put away feelings of distrust that the respondents may have harboured towards the researcher. The stage was now set for a return to conduct more detailed surveys in the areas identified.

3.4.3 PHASE II: MAIN DATA COLLECTION STAGE

The second phase (July - September 2001 and April - June 2002) involved more detailed interviews with the indigenous knowledge holders and other members of the communities. This involved taking notes and more observation. The process was quicker and smoother because of the earlier exploratory stage that had been undertaken at the initial stage a few months before. Indeed the people appeared to have gained comfort from the fact that the researcher had followed official protocol by approaching a well known body representing IMPs and that ZINATHA had given consent to the research. The IMPs who were not members of ZINATHA were approached directly but the fact that the researcher had already been accepted and referred by fellow IMPs facilitated

foreigners came to study about their way of life. The researcher was able to win the confidence of the interviewees thus facilitating access to information.

access. Through the “snow-ball” approach the researcher was able to get references and access to other IMPs and elders. A more detailed description of the data-gathering techniques used during this phase is given after the description of Phase 3 below.

3.4.4 PHASE 3: REPORTING BACK

This stage (December 2002) involved more interviews with the respondents in the formal structures such as scientists and other researchers at the University of Zimbabwe, Non-Governmental Organisations (NGOs) and state administrators and functionaries. It also involved some report back meetings with the people who had been interviewed earlier. The researcher held meetings with officers at ZINATHA to report on the good progress of the research process. A letter was also written to the ZINATHA to officially thank the members and acknowledge to contributions to the study (*Appendix 2*). This is an important task because it meets their expectations and gives assurances that leave avenues open for future research. It helps to cultivate the spirit of trust and confidence that is necessary to recast the image of research in indigenous communities.

3.5 ASPECTS OF DATA GATHERING TECHNIQUES

3.5.1 NEGOTIATING ENTRY

After the general entry negotiated through ZINATHA was accomplished it was still necessary to negotiate entry into the communities particularly when an interview with an

IMP was required. There are certain norms and protocols that must be followed when approaching a community. The process of seeking permission can be an elaborate process as it is necessary to seek prior informed consent from the people. The letter from ZINATHA was useful as it gave the people confidence but it was only a starting point of negotiating entry. Dress and conduct of the researcher are also important and one has to be respectable. As a stranger one has to show humility and to avoid an officious image. An informal, yet respectful outlook is recommended. People usually gather and the interview is often a group discussion that involves members of the village who make contributions whenever necessary. This also showed how knowledge is perceived to be a collective resource rather than an individually constructed entity. The logic of the group discussions was explained by Mbuya Jakwara who stated that in terms of the local *Shona* proverb “*Zano ndega akasiya jira kumase*” which means that no single person has all the ideas. Everyone needs other people in order to share ideas otherwise you will not succeed.⁶³

When approaching and greeting elders at such occasions one must clap hands in a particular manner, humble himself and first ask the youngest person at the gathering to be allowed to chant greetings to the elders. This process is called “*Kuisa maoko*”. The youngster will tell an older person and that person tells the next until the request finally gets to the eldest who will accept the greeting. At that stage all men will clap and chant the totem of the clan, praise the ancestors and the women ululate. At that point the researcher is at liberty to begin his interviewing because he has been accepted. It is

⁶³ Another poignant proverb with a similar meaning is “*Rume rimwe hari kombi churu*” literally meaning that one man cannot cover a mountain, that is, a single person does not have the capacity to complete a task

necessary to explain who you are, your enquiries and your plans with the information that is required. This is significant to cement confidence and create conditions that are conducive for dialogue.

Sometimes negotiating entry may involve one being put to tests to confirm your genuineness. At one village the men were carrying out a task. The researcher was accompanied by two local boys from another village. They were slaughtering a goat. On arrival they got involved in assisting with the various tasks and afterwards they were given meat to roast and share with the people around. All the time the people will be observing and getting used to the stranger in their community. The idea is to feel comfortable and demonstrate your willingness to go along with their way of life. The people want the stranger or visitor to feel welcome and part of them.

One must also be very alert as information is communicated in many ways and one cannot just use the conventional question and answer session. For example at another place called *Gandamasungu*, in *Wedza* the researcher accompanied men to fetch firewood from the mountain. Even at that stage information was gathered about the medical knowledge and conversation techniques as particular trees and bushes were spared because of their special properties which serve the community. Some have medicinal properties and others are useful for the animals while others are located at sacred places. The men were pointing out these important plants during the trip and the researcher could gauge the wealth of medicinal plants from that particular exercise. These tasks may range

on his own.

from hard work to simply sitting around the *dare*⁶⁴ and discussing issues of concern. During those discussions information can be passed through stories⁶⁵. Refusal to participate and accept generosity may be negatively interpreted as arrogance. They want to test if you are willing to be part of them and if you are genuinely keen about their way of life and you are not simply selfish and exploitative. One must not portray the image of an observer with a mission to extract what he wants and leave. The norms and protocols are important parts of their way of life and following them facilitates gathering of information. They are not hindrances but ways through which access into the indigenous communities can be gained. More crucially, consent is not to the interview but to the person himself. If you are not accepted, there can be no interview.

3.5.2 STORY TELLING, DIALOGUE AND INTERACTION

The interview process is more interactive than the usual question and answer session. As Tuhiwai-Smith usefully points out “The quality of the interaction is more important than ticking boxes or answering closed questions” (1999: 136). The proper description of the process of data gathering may not be “interviewing” but “discussing” with Indigenous Peoples. It was an open-ended dialogue not a system of question and answer or ticking boxes to fixed questions. They were extended conversations with the people. It involved listening to stories and observing the surroundings with which the people are inextricably

⁶⁴ The dare is the men’s gathering place just outside the homestead where men sit during evenings. Women do not sit at the dare and have their

⁶⁵ At Makwinja village in Wedza, the researcher was able to attend a family gathering and at the dare, men were openly discussing about medicinal drugs for treating venereal diseases and aphrodisiacs that can be found in plants.

bound. The method of interviewing adopted was sensitive to the culture and way of life of the Indigenous Peoples.

The aim of the emerging approach is to give a voice to the interviewees, as subjects and not objects of research. For a long time Indigenous Peoples have been described and stories have been told about them and their way of life. The aim of the approach is to get access to the indigenous communities by giving priority to their voices to allow them to tell their own story. Colonial systems were characterized by police and military harassment during which the Indigenous Peoples were routinely questioned while their duty was to respond with no opportunity to question or discuss. This caused some resistance in a community more used to dialogue. The answers had to fit the questions and the questioner controlled the process with authoritarian style. Indeed post-independence governments have not made situations any better as the atmosphere of distrust and fear still pervades the rural indigenous communities. Given that background the researcher has to adopt a flexible approach, create an atmosphere of trust, instil confidence and allow the people freedom to have a voice that best expresses their thoughts and feelings.

As a method of communicating information, story telling is central to the oral traditions of the Indigenous Peoples of Zimbabwe. It is a suitable data gathering technique because it fits in quite well with the peoples' way of life and focuses on dialogue and common participation (Bishop 1996: 24). In African communities, communication of messages, lessons and ideas is normally done by way of stories, captured through idioms, proverbs

and illustrations. The best way to get the point of view of the indigenous respondent is to pose your question, explain where necessary, sit back and allow the respondent to tell their story. As a young boy growing up in the community the researcher had been brought up on a diet of stories from the elders and was aware during the data gathering exercise that it was important to pay attention and listen to the stories. The “conversations” gave ample freedom to the respondents to tell their stories. That calls for active listening – that is, being alert as the respondent will often pose questions or seek confirmation as they go along and also being able to detect the messages couched in proverbial language. Some messages are communicated by way of gestures – hands, eyes, etc. It is this communicative process that might be difficult for the researcher who is unfamiliar with the indigenous way of life. The knowledge of the language, proverbs, idioms often used to communicate ideas is crucial and the researcher was able to take advantage of his position to access information couched in these instruments of language. In such circumstances however, an unfamiliar researcher might require a local assistant who will be able to interpret these things as they are in the communication of information.

3.5.3 OBSERVATION

Observation is a useful technique because it allows the observer to see, hear and learn from things happening around him. An observer has to be alert in order to pick messages from the actions as well as from the spoken word. Since communication of messages in the discussions is interactive gestures and other signs are used. In *Wedza* the researcher

attended a healing session where an IMP was at work with her patients. It was a revealing process in as far as the practice of traditional medicine is concerned and the ability to observe and note how things are done was essential. As described earlier, when he accompanied the men to fetch firewood in *Wedza* it required observation to see how they were treating species of plants and other places that were sacred to understand the knowledge system.

3.5.4 RECORDING DATA

The data gathered was recorded by way of taking notes as the respondents told their stories and the researcher observed activities on the ground. It was important to seek consent to the taking of notes. However using electronic recording was a sensitive subject and unacceptable particularly to IMPs who regard such devices as invasions and violations of the cultural/religious aspects of their work. As such electronic recording was abandoned and for others the hostile political atmosphere in Zimbabwe meant they were not willing to be voice-recorded⁶⁶. They admitted to talk but on condition that there would be no electronic recordings. People in rural communities were quite wary of strangers especially coming from urban areas due to the political hostilities. Due to surveillance and violence arising from the difficult political conditions in the country, people are quite sceptical of anyone intending to record conversations. This however was not a major handicap since the researcher was able to take notes but it required more

⁶⁶ The research was conducted during the period of a highly volatile political atmosphere in Zimbabwe and people were generally wary of being recorded by electronic devices. The political situation in Zimbabwe has been deteriorating since the year 2000 as a result of political differences between the two main political parties ZANU PF and the MDC.

concentration and ability to memorise important information as information often came in large quantities especially in group discussions.

3.5.5 REPORTING BACK

Indigenous communities demand accountability. Given the past experiences whereby information has been volunteered for no return, they are keen to know the purposes for which knowledge is to be used before they start to talk. The assistance of ZINATHA was important for it was useful to break that barrier of distrust that normally attaches to science-related research. Also strict adherence to cultural protocol was useful to get access. An important part of the process is to reassure respondents that information will be used in ways that could potentially bring benefits to their situation. It was important to explain how research in other communities in similar circumstances was being done elsewhere in the world and the importance of exposing their position on the global stage. Indeed, they saw the study as a way by which their voice could be heard.

A report-back exercise was to ensure that no misrepresentations were made and that their information had been accurately captured. This was done mainly through ZINATHA where officials were helpful⁶⁷. All this was done without compromising the status of the data as the respondents were specifically told that this was not a campaign but a study that could produce different interpretations and results.

3.5.6 INSIDER/OUTSIDER RESEARCH

As Tuhiwai-Smith (1999) points out, most research methodologies seem to assume that the researcher is an outsider looking at things without being implicated in the scene as an insider. Increasingly however, the insider methodology has gained acceptance and more indigenous people are carrying out research in their own communities. In this project, the researcher occupied a dual role. He was an "insider" because he had grown up in similar communities and knew the *Shona* language, culture and could easily identify with what was being researched and the researched people. Indeed in on one hand, the researched communities perceived him as one of their own. On one occasion while conducting some searches at the ZINATHA offices he was asked by the IMPs who were going to participate in a radio programme on indigenous medical systems to help them explain things. However the date fell outside the time of research so he was unable to attend that particular session. He did however give ideas when they were sought during that meeting and this strengthened the bond. It was a vital opportunity to show that research is not just an extractive activity but an interactive process in which ideas are shared. There is always the danger of failing to see the bigger picture or missing certain details because of taking them for granted.

In another sense the researcher was also an "outsider" because he was a researcher coming from a Western university. With so many problems associated with outsiders exploiting their knowledge there was an initial impression that he was an outsider. There

⁶⁷ Mr Kandihero, manager at ZINATHA was quite helpful providing information and in the reporting back exercise. It was not that they were censoring data but that they were confirming the accuracy of some of the

was a feeling that he could be an "insider" being used by outsiders to extract knowledge and given the way in which indigenous scientists are participants in the extraction of knowledge for international institutes and companies, the skepticism has increased. Nonetheless the "outsider" element equipped the researcher with tools and a critical eye to look at things without bias and helped to avoid taking things for granted. It was necessary to be reflexive in order to control the type of data being gathered. As an insider one has to keep an open mind and be critical of things to avoid a narrow view that might lead to taking things for granted or being too idealistic. One thing to the researcher's advantage was that they saw him as a local person pioneering research in an area of great concern. They had encountered other researchers whom they considered to be "outsiders" and showed their concern at their motives. While it may appear that the "insider" stands a better chance to access indigenous communities, if an "outsider" researcher learns and observes protocol and abides by the norms he should face minimal difficulties⁶⁸.

There are certain ethical aspects of interest such as:

- i. Respect for people and everything around;
- ii. Avoid making condescending statements especially at sacred sites (*Kutosha*);
- iii. Sharing and being generous;
- iv. Engaging in the appropriate greeting process – the handshake, the hand-clapping, asking about one's health and well-being and generally following protocol;
- v. Sharing information and assisting with chores whenever appropriate;

information that had been recorded.

⁶⁸ During the research period, a researcher from Canada Chloe Froemmer was also doing similar anthropological research in the communities. She had spent months learning the Shona language and customs and did not face too many problems entering the communities.

- vi. Do not be defensive or cynical;
- vii. Be part of the system. Do not isolate yourself;
- viii. Be accountable by returning and reporting back
- ix. Explain your intentions frankly and honestly;

3.6 CONCLUSION

In conclusion, this chapter has shown that research itself is an important site of struggle. The research methodologies in indigenous communities are themselves the subject of research. The history of research in indigenous communities has meant that it has a negative image among most Indigenous Peoples. The important thing is to reformulate research methodologies so that they become compatible with the special needs and characteristics of the communities. It does not imply a dismissal of the Western models or methodologies. It means that those methods must be re-modeled to take into account the realities of the indigenous scene. Incorporation of those norms and values would make research more effective. The image of research also needs to be cleaned by making research more useful to the communities. The benefits must be explained and implemented so that the research community is more accountable than in the past.

Overall, the techniques used in this study took account of the realities and gave room to propagate the indigenous voice. It is recommended that similar research approaches as articulated and pursued in this study be followed when carrying out research among indigenous communities. This approach was inspired by the idea that research is “not an

innocent or distant academic exercise but an activity that has something at stake and occurs in a set of political and social conditions” (Tuhiwai-Smith: 1999: 13). Indigenous methodology is ethical and culturally sensitive and that is an important feature in this study. The governing principle is that research must be more respectful, ethical and useful to the Indigenous Peoples. As the chapter has demonstrated, there is a critical connection between research methodologies in indigenous communities and the main subject of this study.

CHAPTER 4

THE RELATIONSHIP BETWEEN KNOWLEDGE AND POWER AND THE “STUGGLE THESIS”

4.1 INTRODUCTION

The relationship between knowledge and power is crucial in this study. This chapter draws on Strange's theory of structural power in the international political economy to explain the position of knowledge as an important pillar of structural power. This theory is also applied at the national level to demonstrate the dynamics of how state deals with different knowledge systems. As a source of power, knowledge is a key site of struggles between different actors as they compete for entitlements arising from its creation and development. The theory on the relationship between knowledge and power is useful to understand the position occupied by Indigenous Peoples and their knowledge systems relative to other groups in the global and local communities.

This leads to the second part of the chapter, which articulates the structure of the "Struggle Thesis". The Struggle Thesis sets out the framework of the struggle between knowledge systems and the propositions that lie at the heart of this study. The contests between the different actors are identified and characterised as and by the struggles between the different knowledge systems. The propositions set out in this structure are critical to the exploration and understanding of the problems facing Indigenous Peoples and their knowledge systems and they justify the approach to finding holistic and

comprehensive solutions. The next Chapter assesses in greater detail the struggle between the Indigenous Medical Knowledge systems (IMK) and the Western Scientific Knowledge systems (WSK). Notwithstanding challenges to the distinction between knowledge systems, this study begins from the proposition that there are at least two historically separated knowledge systems competing for space particularly in the indigenous territories.

The Struggle Thesis is a dialectical model, which presents the relationship between the knowledge systems in issue, i.e. broadly the Western Knowledge Systems (WKS) and Indigenous Knowledge Systems (IKS). It is the key to understanding the relationship between knowledge and power and the factors and processes that shape the availability of protection mechanisms for a particular knowledge system and the lack of protection for the other. It also demonstrates and explains the rationale underlying the movement towards protection of knowledge systems of the Indigenous Peoples.

4.2 THEORETICAL PERSPECTIVES ON THE POLITICS OF KNOWLEDGE PROTECTION

4.2.1 THE RELATIONSHIP BETWEEN KNOWLEDGE AND POWER

This section deals with the theoretical exposition of the relationship between knowledge and power. It attempts to explain why some knowledge systems are protected while others are not accorded similar protection. In the context of this study it helps to explore and explain the inequalities in the protection of different knowledge systems and

specifically in this case, the vulnerability of the IKS and the growth of the movement of claims for protection.

The objective is to develop theoretical explanations in respect of the politics that shape the knowledge protection mechanisms that exist and how such mechanisms impact on the situation of IKS. It can be applied to demonstrate how for example, the IP law regime has become the dominant national and international norm in the field of knowledge protection notwithstanding the fact that it is by no means a universal mechanism for knowledge protection as evidenced by the prevailing contests. Simultaneously, certain questions call for explanations. For example, why and how did it become possible to project IP law as the universal norm for knowledge protection?; Who are the principal actors that influence the development and spread of IP law and what are the implications for IKS? These are enquiries into the growth and dominance of the IP law system in the field of knowledge protection. Specifically, they are also questions with implications on the growth and dominance of WKS systems and the peripheral status of IKS systems.

4.2.2 THE CENTRALITY OF KNOWLEDGE IN THE GLOBAL ECONOMY

Knowledge has always been important in the development of societies in their attempts to cope with challenges in their natural areas of habitation. In today's global economy knowledge has assumed an increasingly high profile and has become a central asset over which the main actors jostle for control. Greater economic activity is shifting towards knowledge-oriented services (Ryan 1998) and the "economics of knowledge in the

emerging global knowledge society has seen some life sciences companies enter into partnerships with Indigenous Groups” (Drahos 2000: 246). In short the importance of knowledge has given rise to what is now termed the “information society” or “knowledge economy”.

Drahos and Braithwaite (2002) offer an exciting historical analysis of the growth of “global knowledge firms” throughout the latter part of the 19th and 20th centuries. At the beginning of the 20th century, entrepreneurs realised the significance of knowledge as a valuable resource of economic production. Companies specialised in the acquisition of knowledge through research and in the process collaborations between the scientific community, producers and financiers were established. The pursuit of and discovery of new knowledge fuelled the 19th century Agricultural and Industrial Revolutions in Britain and Western Europe and economic enterprises have always sought ways of acquiring new knowledge to enhance their positional superiority over others (ibid.).

Consequently the historical struggles over knowledge have taken a higher profile. Corporations continue to develop strategies and means of acquiring knowledge, storing it and controlling how it is created and distributed (Sell 1998). States that host powerful corporations benefit from the latter’s ability to acquire knowledge and from their capacity to package and disseminate it in ways that increase their earnings compared to others.

In addition, the determination of what counts as “knowledge” for purposes protection becomes crucial. Those in a position to make that determination of what counts as

protectable knowledge have the power and capacity to shape the dominant knowledge terrain. This function is important because what is considered as knowledge is protected and what is not determined as valid and legitimate knowledge is left vulnerable to exploitation. It is within this context where the disempowerment of Indigenous Peoples and IKS takes place. If IKS fail to meet the criteria to determine what counts as knowledge its holders lose their rights to claim protection rights over it. Crucially therefore, any attempts at redressing the situation of IKS will have to address issue of legitimacy and validity. This study employs Susan Strange's theory of knowledge as a structure of power in the international political economy to explain the marginalisation of IKS and the consequent lack of protection mechanisms (Strange 1988).

4.2.3 STRANGE'S THEORY OF KNOWLEDGE AND POWER IN THE GLOBAL ECONOMY

4.2.3.1 STRUCTURES OF POWER

In an assessment of the international political economy Susan Strange identifies two kinds of power: Structural and Relational. Structural power refers to the capacity to shape and determine structures of the global political economy in which other states, political institutions, economic enterprise and people generally have to operate. It also includes the power to design the agenda for regimes of rules/customs to govern international economic relations. This is the power to decide the way in which things are done. Strange identifies four sources from which structural power is drawn: Finance, Production,

Security and Knowledge. This study concentrates on the Knowledge structure – the power arising from the control over beliefs and ideas.

4.2.3.2 KNOWLEDGE AND POWER

The central idea is that those who possess dominant knowledge have power and can make decisions over the terms by which others can have access to it. They also have power to determine what counts as knowledge. It is vital to identify the dominant knowledge system and how it came to be in that position and consequently who is in control over it. This fits in well with the old adage that “knowledge is power”. According to Strange, whoever acquires knowledge or is able to deny access to others when they need it or can determine the channels and terms through which it can be communicated to others holds important structural power. This power, which is often “overlooked and underrated” and is less well understood than for example the production or security structures, it is quite important.

As indicated, the owners and controllers of the dominant knowledge systems have power and control over what constitutes knowledge. They determine the knowledge that is discovered and how it is valued and the terms of its distribution⁶⁹. Systems can be created to maintain the dominance of a knowledge system and to protect the rights of those that possess dominant knowledge. For instance, a legal system can be created to secure rights

⁶⁹ Refer to Chapter 8 below where the role of databases of traditional knowledge is discussed. It is argued that care must be taken not to use one index of scientific knowledge as the determinant of what counts as knowledge. At present, science provides the index upon which the validity of knowledge is measured (Whitt 1998).

in knowledge and therefore to facilitate its control. The result is that those in control are in a position to determine what constitutes knowledge and reject those systems that do not conform to set characteristics.

According to Strange, historically, before the advent of scientific knowledge in Western Europe as the dominant structure, there was knowledge structure heavily dependant and influenced by Christianity. Rulers were enhanced by the ideas and beliefs developed from the Christian faith⁷⁰. Interestingly, just like the Christian based knowledge structure before it, the scientific knowledge structure also instituted violent repression of alternative knowledge structures. The challenges to existing dominant knowledge structures come from both “old” and “new” sources. The dominant structures resist the challenges by insisting on maintaining their dominance and superiority and simultaneously dismissing others as irrelevant and invalid. The repression grows in response to increases in the challenges. That is the point at which the struggles between knowledge systems are most evident. Strange refers to the conflict between scientists on the one hand and environmentalists and other various other groups that challenge the claims of the WSK structure. The same challenges that are posed by other systems to scientific knowledge are in some ways similar to challenges that science posed to the knowledge structure inspired and influenced by Christianity in the 19th century (Juma 1989).

⁷⁰ Indeed the knowledge structure informed by Christianity has not totally dissipated. The challenges by the church in areas such as abortion, the use of contraceptives, etc reveal that ideas and beliefs developed within that structure are still present although they now play a peripheral role in the face of the dominant structure informed by science.

The significant point is that characteristically, those with authority in the knowledge structure normally employ tools to reinforce their position of superiority. Although the dominant knowledge structure is not a monolithic entity, it nonetheless presents a unified picture in the face of challenges from alternative systems. There is a mutually beneficial connection between holders of political power and creators of knowledge within the dominant system and they will use it for enhancement of their authority while devising mechanisms for its protection⁷¹. These tools can be both coercive and legal (Sell 1998). They determine what counts as knowledge and the means of entering into their ranks. This implies that a knowledge structure employs means at its disposal to maintain its dominant position at the expense of alternative knowledge systems. Often people behind the dominant knowledge structure use legal systems with the support of coercive force. This is because their authority is also usually justified by the dominant knowledge structure and alternative voices have little space to manoeuvre.

4.2.3.3 THE STATE AND CORPORATE POWER

The holders of political power play a crucial role in the selection and development of the dominant knowledge system. Thus there is a complimentary relationship between the modern state and the dominant knowledge system. This is because the state provides mechanisms for supporting the dominant knowledge system while the development of the knowledge system gives power to the state. In addition the current climate of globalisation has led to a unification of markets and the growth of global corporations.

⁷¹ The next chapter will demonstrate how the WSK structure gained dominance over the IMK structure in indigenous territories.

The large corporations wield immense power and part of this arises from the development of new technologies and improved communication systems (Drahos and Braithwaite 2002). Alongside the powerful industrial states power has been centralised in these global knowledge firms. It is not a coincidence that most of them are based in the dominant industrialised countries. The relationship between countries like the USA and its corporate community has enhanced its structural power in the global economy⁷². The USA has significant structural power not just in the security, production and financial structures but also in the knowledge structure. The USA in turn has the incentive to ensure that the dominant knowledge system is properly protected. Clearly, those who have power to define knowledge, can and have built up structures that support the desired system and consequently exclude other systems that do not meet the set terms.

The current battles over alternative knowledge systems may also be explained by the increasing competition for leadership in the knowledge structure as states, individuals and corporations seek to increase their store of knowledge. Arguably knowledge is at the centre of struggles, partly replacing territorial claims or claims over physical industrial resources. This study contends that the competing claims of scientists and the counter claims of Indigenous Peoples over IMK systems must be seen in this context: struggles over knowledge as a source of power in both local and global settings

4.2.3.4 SUMMARY OF KEY ELEMENTS

⁷² Chapter 7 will demonstrate how the close partnership between the corporations and the USA played an influential role in the globalisation of IP law as a mechanism to protect the creations and development of knowledge through the adoption of the TRIPS agreement. This has the effect of strengthening the dominance of the scientific knowledge structure, which is largely protected by such laws.

There are three points that emerge at this stage:

- i. Knowledge confers power to those who create and hold it;
- ii. Those that have power and control of the dominant knowledge system can determine what constitutes knowledge; and,
- iii. Those with knowledge and power can control the mechanisms of access to and protection of knowledge.

It is necessary at this stage, to take a step further and make propositions in respect of how the dominant knowledge systems assumes its power and the response of the other knowledge systems to this domination. It is used in this study to demonstrate how IKS have come to occupy the peripheral position they have in relation to the WKS. It is within this framework that the dynamics in the struggles between the WSK systems and the IMK systems are situated.

4.3 THE “STRUGGLE THESIS”: SETTING THE ANALYTIC FRAMEWORK

4.3.1 CENTRAL ASPECTS OF THE STRUGGLE THESIS

In connection with the preceding section’s exposition of the relationship between knowledge and power this part extends the explanatory thesis for the situation of and problems surrounding IKS with special focus on the IMK systems *vis a vis* the dominant WSK structure. As a socio-historical explanation of the contemporary situation of

Indigenous Peoples, it also creates the context for the justification of the legitimacy of the claims for the protection of the IKS. This exposition places the “gravity of history” (Ansell Pearson *et al* 1997) at the centre and in that respect it identifies the current problems over the protection of IKS in the historical context characterised by the colonial encounter between “the West and its Others” (Parekh 1997).

It is grounded on the historical encounters between knowledge systems or more directly the people in possession of the knowledge systems. This approach challenges “epistemological ethnocentrism”, a belief which perpetuates the superiority of one knowledge system over others (Mudimbe 1988). It advocates a pluralistic approach that recognises the diversity of knowledge systems. In connection with Strange’s theory of knowledge and power, the Struggle Thesis sets up an analytic framework for the investigation of the relationship between the state and knowledge systems. It explores the state’s treatment of different knowledge systems and considers the situation of the IKS before, during and after the colonial periods within the institutional framework.

The Struggle Thesis rests on the fact that knowledge has a central place in economic, social and cultural life and as such it is a site of contests and resistance. In an agrarian society where land is the central asset, the socio-economic relations are determined by the patterns of distribution of and title to land. Likewise where knowledge or information is the central element relations will be determined by distribution of, access and title to knowledge. In a knowledge economy, knowledge is a site of struggles as people seek to assert claims and gain rights for their contributions to the knowledge base.

The Struggle Thesis can be divided into two distinct but related parts:

- i. Struggles Between Systems of Knowledge and
- ii. Struggles Between Mechanisms of Knowledge Protection and Systems of Knowledge.

These struggles are manifestations of the physical encounter between holders of the different knowledge systems. The choice of “struggle” is deliberate and calculated in that it emphasises the thrust of the relationship and interaction between knowledge systems as a process and allows space for the possible resolution of the problems that make interaction difficult.

4.3.2 STRUGGLES BETWEEN KNOWLEDGE SYSTEMS

4.3.2.1 STRUGGLES FOR SPACE

The key aspect of the main proposition is based on the theory that an encounter between two or more different entities is likely to generate struggles for the greatest portion of the available space. The spatial competition for positional superiority leads to domination and subordination of one system over the other. Consequently the struggle for space creates the phenomenon of the “Dominant” and the “Other” in terms of the relationship between the entities (Said cited in Tuhiwai-Smith 1999; Davis 2004). On the part of the subordinated entity this struggle moulds itself into a movement that reclaims entitlements

and space against the dominant one while the dominant reinforces its position even by extracting and incorporating elements of the subordinated systems.

As indicated, in this context the Struggle Thesis identifies at least two systems of knowledge competing for space: Western Knowledge Systems (WKS) and Indigenous Knowledge Systems (IKS). The key point is that the protection of knowledge systems or the lack of it, is a product of the historical encounter and relationship between the two knowledge systems. This is applied to explain the vulnerability of IKS *vis-a-vis* the WKS. This is connected to the other key proposition that there is a link between the position of a knowledge system and the availability or otherwise of mechanisms for its protection. The essence of the struggle is that the WKS gained positional superiority over the IKS but simultaneously the IKS have continued to resist and a struggle between the two systems has been taking place. It is that struggle that is at the centre of claims and counter-claims for protection between the different actors.

4.3.2.2 LEGITIMACY AND VALIDITY OF A KNOWLEDGE SYSTEM AS POINTS OF CONTEST

The primary points of contest are the legitimacy and validity of the content of knowledge within each system. It is a contest between knowledge systems as they struggle for legitimacy and validity within a given space. Arguably knowledge is not a monolithic entity but differs according to both time and space. A knowledge system developed in one set of conditions may differ from another developed in separate conditions. At the

encounter of two or more different knowledge systems, the struggle for space as each system strives to establish “positional superiority” over the others leads to the establishment of a dominant knowledge system and subordinated knowledge systems in particular contexts.

Through its holders and proponents, the dominant knowledge system strives to entrench itself by denying the validity, legitimacy or even existence of the other systems. The successful claims to legitimacy establish the basis validity and protection⁷³. The economic, social and political system that accepts the dominant system assists it to override and marginalise the others. In the result the others are left on the periphery. In this scenario, the socio-political and economic system that is in control plays a part in determining the positions of the knowledge systems. This is normally in the form of the support for the dominant system and measures that thwart the position of other knowledge systems.

4.3.2.3 RESISTANCE AGAINST DOMINATION AND MARGINALISATION

However, in spite of the obstacles the other knowledge systems do not perish but continuously try to re-assert their position as they strive to re-establish their legitimacy and validity. The struggle is to prove their validity and legitimacy as systems of knowledge and ultimately seek protection from marginalisation and unjust exploitation

⁷³ It will be noted in Chapter 7 that those who advocate the extraction of elements of IMK for patenting and recording in databases fall confirm this argument because for the IMK to be patented or recorded in a database it has to be demonstrated as valid and legitimate but only in terms of the WSK structure. The measure of validity and legitimacy is therefore set by the dominant knowledge system.

by the dominant system. The protection is sought because despite denying the existence of the other systems, the dominant is sometimes parasitic on the others. It is the parasitic behaviour of the dominant that causes problems and provides the greatest inspiration for the marginalised knowledge systems to prove their worth and call for protection.

4.3.2.4 RESEARCH AS A SITE OF INTERACTION AND CONFLICT

The most crucial point of contact between knowledge systems is research and it is where the interaction and conflict between the WKS and IKS are most evident. It is the point where the holders of the dominant seek to know and extract elements from the subordinated knowledge systems. Research represents images of the subordinated through the lens of the dominant systems. Research also leads to the phenomenon that the things that may be unknown within the dominant but are known in the subordinated systems are labeled “discoveries”. As Tuhiwai-Smith points out that,

“European conceptions of knowledge and of research have meant that while being considered “primitive”, Maori society has provided *fertile ground for research*” (1999: 70) (added emphasis).

More importantly, it is at this point that problems arise since the dominant claims as its own the “discoveries” despite the fact that they are already part of the other systems. Proponents of each system lay conflicting claims to the rights to those “discoveries”.

Therefore certain crucial questions arising from this have to be investigated. If through research there is an extension of knowledge, which of the knowledge systems is credited? In addition, who is entitled to the rights and benefits emanating from the extension of knowledge? When one knowledge system claims all the benefits and the claims of the other system are neglected there is a problem and the contest over knowledge become acute. The extraction of knowledge enhances the dominant systems while weakening other systems. This makes the subordinated system even more determined to fight against this unfairness of the process. As they do not remain idle, the alternative systems fight for recognition by claiming spaces from the dominant systems. The dominant system does not acknowledge the contribution of the other systems but instead claims as its own the results of the resources derived from those systems. This in part explains the emergence of movements for the reclamation of rights by other knowledge systems.

The parasitic nature of the dominant WKS in relation to the IKS has been a characteristic feature from the beginning of the encounter between the systems. In the context of this study, the argument is that while the past and current research into IMK shows that although its usefulness is privately accepted for the development of conventional medicine, it has not been acknowledged as a valid knowledge system deserving of protection in its own right. That is the centre of the disputes because from their own perspective the Indigenous Peoples call this practice as unjust expropriation of their resources.

As the study will demonstrate in more detail, research is important for the creation of knowledge and forms an important part of the laboratory aspect of Western scientific medicine. The support of a particular knowledge system by the state is an indication and measure of how the state plays a part in the promotion of a knowledge system. Through this framework, this study explores the role of the state in the growth and domination of in particular, the WSK systems and the marginalisation of IMK systems in indigenous territories. It also assesses how the state policies affect the knowledge protection mechanisms in respect of the different knowledge systems. Chapter 6 will explore and demonstrate how the state in Zimbabwe has responded to these struggles over the years.

Knowledge will remain contested terrain for a long time. The current debate about the protection of IMK is a clear illustration of the continuing battles over knowledge. The central point of concern is the exploitation of IMK and the non-recognition of its contribution to the body of global knowledge. In short the Struggle Thesis is an exposition of how spaces have been limited for IMK and how the current struggle is an attempt at re-creating those spaces. A knowledge system earns its protection from the recognition of its validity and legitimacy as an independent body of knowledge. In other words it has to find space first and then lay its claims for protection because without the space its claims hardly earn serious attention.

4.3.3 STRUGGLES BETWEEN KNOWLEDGE SYSTEMS AND KNOWLEDGE PROTECTION MECHANISMS

The second level of the Struggle Thesis focuses on the clash between knowledge systems and knowledge protection mechanisms. This also involves the encounter between the mechanisms designed for the protection of different knowledge systems. It rests on the idea that each knowledge system has a mechanism that is devised for its protection and preservation (Laurie 1997). This protection recognises the rights of individuals or groups to gains arising from the knowledge systems. Its holders value their knowledge system and they design systems for its distribution, acquisition, use and dissemination within and beyond the community. Indeed,

“All societies have had to devise norms for regulating the ownership and use of different kinds of information ... One can thus identify customary equivalents [in indigenous communities] of intellectual property.” (Drahos 2000: 248).

The main proposition is that the dominant knowledge system is more likely to be accompanied by a mechanism that is designed and employed to protect it. The protection mechanism becomes part of the institutional structures created to augment its power and position in society. The struggle between protection mechanisms will, as at the first level produce a situation where the mechanism of the dominant knowledge system will dominate the mechanisms for the subordinated knowledge system. The result is that the dominant protection mechanism will be imposed on the subordinated knowledge systems regardless of the possibility of incompatibility. In essence, it becomes the dominant legal norm by marginalizing the norms that exist in indigenous territories. Like the WKS, the dominant western legal norms establish “positional superiority” over the local norms. The

question that arises is whether the dominant legal norm is able to properly cater for the requirements of the subordinated local knowledge system.

In the context of this study the proposition is supported by the argument that where IP law was devised for the protection of WKS, the Indigenous Peoples also developed their own mechanisms for the protection of their own knowledge systems⁷⁴. Each protection mechanism takes into account the unique characteristics of each knowledge system and responds to the needs of the community within which such knowledge is developed and held. There are various considerations that influence the nature of each protection mechanism. The rationale for protection of knowledge may also differ from one community to another. These can range from social, economic, cultural and political factors and their influence varies from one community to another. Like the WKS, the dominant western legal norms establish “positional superiority” over the local norms existing in indigenous communities.

The crucial point is that when a protection mechanism devised for one system of knowledge is applied to another system there is bound to be a conflict arising from the probable incongruity⁷⁵. This framework can be applied to assess the relationship between IP law and IKS generally and in this study the relationship between patent law and IMK systems. It is also used to investigate and unearth the local protection mechanisms developed in indigenous communities. IP law embodies distinctly Western liberal conceptions of personhood, private property and the ideology of "possessive

⁷⁴ The WIPO has recognised this through their research in indigenous communities Draft Report on Fact Finding Missions (1998 – 1999)

individualism" (McPherson 1988). It is bound to conflict with a different cultural context in which collectivism and individual duties within society are privileged compared to private individual rights against society. The idea of legal globalisation and struggles against it highlight the struggles for power between the various actors. The local systems resist the perpetuation of the myth of the superiority of the laws that are subject to globalisation.

In that context there is a distinct possibility of another clash between the dominant legal norm and the subordinated local knowledge system. As Coombe demonstrates, the legal tools that embody Western cultural ideals cannot be easily exported or imposed on a different context without causing harm (Coombe 1998). The ultimate consequence of this clash and potential incompatibility is the creation of a vacuum in the formal protective mechanisms as far as the subordinated knowledge system is concerned. In the circumstances the subordinated knowledge system finds itself vulnerable, as there will be no formally recognised protection mechanism to meet its requirements. The objective of the struggle therefore is to seek an appropriate mechanism to suit the needs of the vulnerable knowledge system.

4.3.4 SUMMARY OF KEY ELEMENTS OF THE STRUGGLE THESIS

There are essential points that emerge within this framework:

⁷⁵ Chapter 5 will demonstrate the impact of the marginalisation of indigenous customary laws in Zimbabwe

- i. The clash of knowledge systems produces a “Dominant – Subordinate” relationship whereby the WKS dominate and sideline the IKS. Consequently, the WKS attains a “positional superiority” over the IKS.
- ii. The WKS as the dominant knowledge system brings along the protection mechanism designed for its conditions and this mechanism becomes the dominant legal norm by also marginalising the local norms in indigenous communities. The positional superiority of the WKS translates into a positional superiority of the legal norms designed for its protection, in this case IP law;
- iii. The result is that the subordinated IKS are left exposed and vulnerable to exploitation because there is a vacuum in the formal protection system and
- iv. Knowledge remains a site of struggles and the holders of subordinated knowledge systems continue to assert claims for the legitimacy of their knowledge and for rights relating to use, distribution and acquisition of knowledge. In short they seek to fill the vacuum created by the imposition of a legal mechanism that fails to protect indigenous knowledge.
- v. The state plays a key role determining the position of individual knowledge systems by the way it treats them. This is also complimented by the role played by other non-state institutions in advancing the cause of individual knowledge systems.

It is within the framework of these claims and propositions that the pertinent issues in this study are discussed and analysed. As the study unfolds it will be clear that the dynamics of the relationships between knowledge systems and the role of the state entail that there are slight variations. However the crux of the relationship is one predominantly characterised by the phenomenon of struggle.

4.4 CONCLUSION

This chapter has brought together the framework and propositions that inform this study. Strange's theory demonstrates the theoretical strands in respect of the relationship between knowledge and power at the international level which can also be transplanted to the national level in assessing the role of the state in its treatment of knowledge systems. Aside from attempting to explain the international legal regime, which protects some knowledge systems but not others, it also explains the state's role in the promotion of certain knowledge systems at the expense of others. The Struggle Thesis pursues these perspectives both at the national and international levels by creating a framework for the assessment of the unequal status and protection of different knowledge systems. It brings to together the threads that make up the central argument that the vulnerability of IMK systems is a construct of the struggles between knowledge systems and their respective proponents and resolving these struggles is crucial to the solution of the problems⁷⁶. This is a wider project than is often discussed in law texts and journals. Additionally the image

of “struggle” is carefully selected in order to illustrate that there is a potential for resolution of the current problems.

⁷⁶ As the review of the debate between use of IP law and IKS shows, the issues are too narrow and legalistic whereas the problems and the problems transcend the legal realm and require a more comprehensive solution.

CHAPTER 5

A SOCIO-HISTORICAL ANALYSIS OF THE STRUGGLE BETWEEN THE INDIGENOUS AND WESTERN SCIENTIFIC KNOWLEDGE SYSTEMS

5.1 INTRODUCTION

This chapter pursues in greater detail the propositions advanced and themes developed in the previous chapter. In particular, it develops in more detail the notion of the Struggle Thesis. It develops the propositions that illustrate the struggle between the knowledge systems and how that struggle has implications on the position of Indigenous Knowledge Systems (IKS) and in particular Indigenous Medical Knowledge (IMK) systems. The technique adopted is a socio-historical analysis of the dynamics of the relationship between the knowledge systems. Apart from that, the chapter lays down the foundation upon which the findings of the treatment of the knowledge systems by the state in Zimbabwe can be understood. The treatment of the different knowledge systems in Zimbabwe, which also tests the propositions stated in the framework of the Struggle Thesis is discussed in Chapter 6.

Alongside chapters 4 and 6, this chapter develops and confirms the argument that the lack of protection of IKS is embedded in the historical inequalities in respect of their treatment in relation to WKS. The chapter will focus more specifically on the IMK systems and WSK systems. The exposure of the myriad of factors that undermine IMK systems

through this socio-historical analysis is vital for the formulation of policies for the proper protection of knowledge and rights attaching to them.

5.2 THE ENCOUNTER BETWEEN KNOWLEDGE SYSTEMS

This study has identified that the colonial encounter brought face to face two different systems of knowledge in indigenous territories. The IKS were confronted by the new WKS brought in by the new settlers in indigenous territories. The new Western ways of knowing were different from the local ways of knowing in their conceptions of logic, rationality, objectivity, etc (Tuhiwai-Smith 1999). Western medicine is presented as a system based on a knowledge system that is rational, systematic, dispassionate and objective (Cunningham and Andrews 1998: 8). In the encounter and the ensuing struggle WKS were backed by a diverse range of factors arising from the support of the colonial state and other actors as the IKS were displaced from the mainstream.⁷⁷

5.3 CREATION OF LABELS AND STRUGGLES FOR IDENTITY

Notwithstanding the possibilities for dialogue between the knowledge systems, the IKS were simply dismissed as irrelevant and archaic while the WKS that were modelled as the modern and progressive systems were given preferential treatment by the state. The

⁷⁷ “Indigenous knowledge system is about re-opening crucial files that were closed in the chaos and violence of colonialism in which the cultural, scientific and economic life of the colonised were subjugated and crushed.” Sipho Seepe “Indigenous Knowledge Systems can benefit everyone” Daily Mail & Guardian October 19 2001 (South Africa)

scenario undermined the idea that each knowledge system has its peculiar strengths and values that must be appreciated on their own merits. The intention of this study is not to

“question Eurocentricism’s validity within its content but to indicate that such a view must not seek an ungrounded aggrandisement by claiming a universal hegemony. Indigenous Knowledge Systems enable us to re-establish knowledge formation as the story of all animals and not just of the lion” (Asante quoted in Seepe 2001).

The idea is to open the spaces in order to articulate the voices of the marginalised. The problem is that a single yardstick ignores the diversity and plurality of global knowledge systems and forces the rest to conform to a single system.

Parekh (1997) identifies the exclusivism of the Eurocentric Enlightenment idea of universalism as one of the key problems. This is because historically “Universal” has meant "European, male, heterosexual" and those outside the stated norm were considered as “subnormal exceptions or accidental particulars” (ibid. at 60). However, in reality what was presented was “European provincialism that passed for universalism” (ibid.). The domination leaves no place for the “other” to be recognised and ignores the fact that the WKS were products of a particular society in Western Europe and parts of North America and therefore it embodied the values of that particular society (Boju 2001). Therefore the scientific basis of Western medicine is that it is rational, dispassionate and objective may be different from the way in which alternative forms of medicine are viewed by their own societies. The conception of knowledge and its purposes in Western

society may be different from the way it is viewed in other societies. That however, should not destroy the validity or legitimacy of the different systems of knowledge.

In essence the dominance of WKS has made it difficult for other ways of knowing to gain entry and acceptance within the largely western oriented mainstream. Having established positional superiority, the WKS became the dominant yardstick of defining what counts as knowledge. Knowledge was thus defined from the single perspective of the WKS⁷⁸. In effect this meant that knowledge that did not fit the confines of what the Western system defined did not qualify as knowledge for purposes of protection. Consequently that had negative implications on any claims for protection. That remains the case today. At this stage it is necessary to explore the Struggle Thesis at the specific level between IMK systems and the WSK systems to demonstrate the foundations of these propositions.

5.4 THE CASE OF THE STRUGGLE BETWEEN INDIGENOUS KNOWLEDGE SYSTEMS (IMK) AND WESTERN SCIENTIFIC KNOWLEDGE SYSTEMS (WSK)

5.4.1 CLASHES BETWEEN IMK AND WSK

Waller and Homewood aptly characterise the encounter between the two forms of knowledge as that of

“one based on Western scientific principles of investigative and curative medicine and directed towards market production and ultimate eradication of disease [WSK], the other based on inherited knowledge drawn from local observation and experience and directed towards the reproduction and survival [IMK]” (1998: 69).

The present system of Western scientific medicine is premised on particular “Western theories of knowledge, privileging systematic observation and experiment, aspiring to models of physics and chemistry” (Cunningham and Andrews 1998: 8) Thus the term “scientific” gives a positive label to the knowledge system to which it is attached. On the other hand it implies that to call another system of medicine “unscientific” is to condemn it as “arbitrary, irrational, unsystematic, misguided, and ineffective” (Cunningham and Andrews 1998: 7). David Hume, a British scientist is quoted as having written in 1848 that there was “no ingenious manufacture amongst them, no arts, no sciences” in relation to indigenous communities that he had encountered (Harrison-Chirimuuta 1998: 60).⁷⁹ Western medicine has over the centuries acquired the ideological and conceptual power over other systems of medicine that have been deemed unscientific. In the scheme of things, to describe a medical system as “unscientific” is no more than a description that it is not a product of the recent tradition of Western medicine.

Scholars arguing for IMK have pointed out that Western science has been hostile to indigenous ways of knowing (Tuhiwai-Smith, 1999). According to Roht-Arriza (1996)

⁷⁸ Compare with the point that Liberal theory was unable to understand modes of thought in their own terms and to respect their integrity. In other words what did not comply with the liberal modes of thought was hardly recognised.

⁷⁹ Quoted in Fryer , *Staying Power* at 152

western science and industry treat the indigenous knowledge systems as “quaint”. Generally, Western scientific discourse dismisses indigenous medicine as unscientific beliefs, superstition, barbarism and witchcraft (Aginam 2002). These attitudes have led to the dismissal of IMK systems to the periphery as WSK claimed the space as the true and legitimate system of knowledge. To that extent policies and attitudes leading to this marginalisation form a complex structure that place IMK systems in the position of vulnerability under the present conditions.

5.4.2 IMPERIAL NATURE OF WSK

Historically, Western and Indigenous forms of medical knowledge have co-existed in an atmosphere largely characterised by hostility⁸⁰ (Fanon 1965) Power was at the centre of imperial domination. This domination was reflected in a number of areas including the treatment of the knowledge systems. The historical relationship between Western medicine and indigenous medicine illustrates the fact that Western medicine was essentially “medicine of domination” (Cunningham and Andrews 1998: 5). The western notions of rationality and objectivity of knowledge were used to dismiss other forms of knowledge as “primitive” thought and superstition (Chavunduka 2001).

The universalist assertions and superiority claims of WSK account for the forceful manner in which they were brought into indigenous communities and the violent marginalisation of the local knowledge systems. This was notwithstanding the fact that

⁸⁰ Frantz Stangard, *Traditional Healers: Traditional Medicine in Botswana* (Ipelegang, 1985) demonstrates the hostility displayed by the Western medical practice towards the local medicine in colonial Botswana.

Western medicine itself is the “development in the native medicine of modern Europe, which was then made universal by conquest and exportation” by means of colonialism and imperialism (Cunningham & Andrews 1998: 6). The violence perpetuated on the IMK systems characterised by such condescending tags as “primitive” and “unscientific” and the legal and physical ill-treatment of the system and its holders (Roht-Arriaza 1996; Tuhiwai-Smith 1999; Chavunduka 1994). The IMK systems were marked as “inferior, stupid or merely superstitious” (Cunningham and Andrews 1998: 12). These local medical systems were not judged on their own terms but on the terms understood within the Western intellectual tradition within which Western medicine had developed.

According to Cunningham and Andrews, studies find that western medicine, “both metaphorically and literally, is imperialist as a form of knowledge and as a practice, that this imperialist nature of Western medicine can be seen wherever it has been spread, both within and beyond the areas that were subject to political imperialism” (1998: 1). In the words of Headrick “[western] medicine has always been a tool of empire” (1981: 1). The development of imperialism in Africa went hand in hand with the advancement of scientific medicine in Western Europe and both developments can be seen as products of similar political, industrial and social forces (Arnold 1988).

Indeed, for example tropical medicine was important in facilitating settlement of occupiers in indigenous territories as it enabled them to deal with ailments that were largely unknown to the western world. Western scientific medicine was directly used to promote acts of imperialism for example in dealing with unfamiliar diseases like malaria

in order to penetrate mosquito-infested territories. It was also essential to promote health and worker efficiency and hence productivity by combating crop and animal diseases⁸¹. Waller and Homewood also show that treating and combating disease were used for political ends and were manipulated by the colonial state as demonstrations of superiority of Western civilisation. It was both a means of measuring success of colonial rule as well as a method of social control (Harrison-Chirimuuta 1998).

Therefore, in a wider sense the conflict between IMK and WSK is a reflection of the tensions that dominated the colonial project. As shall appear in more detail in the discussion of the findings in Zimbabwe⁸², the colonial state carefully designed mechanisms to marginalise IMK in favour of the WSK in strategies that were meant to bolster its power over the indigenous population (Chavunduka, 1994).

5.4.3 THE CHURCH AND WESTERN MEDICINE

One can also notice an alliance between the state and the church in their bid to manipulate the influence the WSK system in their battles for power against the indigenous communities and their religions. In respect of the church and medicine, “Western missionaries were candid about the value of medicine for introducing the heathen first to Christianity and thence to trade with the west” (Cunningham and Andrews 1998: 1). It was quite ironic that the church embraced and used WSK given that

⁸¹ According to Cunningham and Andrews, two great innovators in laboratory medicine, Louis Pasteur and Robert Koch were strong supporters of the growth of empire and colonies. Koch is reported to have travelled to colonies to deal with human and animal disease and to help colonial expansion (1998).

⁸² Refer to Chapter 8 below.

the latter had been part of the emerging dominant knowledge system that had challenged and partly displaced the knowledge system that sustained clerical and religious authority in Western Europe. In addition, the cultural element in IMK attracted the hostility of the Christian missionaries and so they colluded with the colonial state to sideline it. The displacement of the indigenous religion and the knowledge system was a common area of interest between hitherto antagonistic elements⁸³. The holders of IMK were also religious, spiritual and political leaders. They played an important social role in the community and they were seen as barriers to the authority of the colonial state. Their knowledge was a source of power and therefore undermining the knowledge system was part of the scheme to weaken their hold on the colonised communities. It has been shown that in southern Africa, attempts were made by the colonial state to “transfer the responsibility for healing from the rebellious and powerful African healers called *amagqirha* to a corps of European or European-trained doctors loyal to imperial authority” (Gordon 2001: 165). The suppression of IMK was therefore both a political and ideological decision in the power struggles for the control of the indigenous communities and their resources.

5.4.4 CLOSING SPACES FOR ALTERNATIVES

Institutionally, for years scientific medicine has remained a closed discipline. It takes all the spaces and does not offer room to the alternative systems of medicine and consequently traditional medical practitioners have historically been excluded at the

⁸³ The struggles between western religion based knowledge systems and the scientific knowledge systems have never really ceased as one can point to examples over the scientific projects such as animal and

official level. The claim is that it is rational and true and can apply everywhere in all conditions and at all times.

Western scientific medicine can be generally categorised into two types:

- i. Clinical medicine and
- ii. Laboratory medicine

The laboratory aspect is crucial in this knowledge system because according to the French physiologist Descartes,

“The true sanctuary of medical science is a laboratory; only there can he [the scientist] seek explanations of life in the normal and pathological states by means of experimental analysis ... There, in a word, he will achieve true medical science” (Quoted in Cunningham and Andrews 1998: 8).

It is significant that he saw true medical science as only emanating from the laboratory implying that what came outside of that model did not measure up and possibly therefore, could not be considered as knowledge. WSK became the barometer against which all other medical knowledge systems were to be judged. Consequently, other medical systems, lacking the claims or the standards of Western medicine have been found wanting against those criteria. It may have been an expression of the nature of WSK but it also had the effect of closing the space to alternatives. It also bears connotations of exclusivity of WSK and its superiority over other claims to science-based knowledge.

Arguably, the system that holds the claim to “truth” or superiority is the one that succeeded in the contest against other systems. The Western form of medicine that is called “scientific” initially won advantage in the contest and relegated all others to the margins and it remains the dominant system. The curative success of this type of medicine seemed to enhance the image of superiority and gave the impression that it was the system that was closer to nature. As a result of relative success its proponents claim that it is universal and objective and hence free from bias with its validity being independent of local circumstances. Science therefore represents the "model" way of thinking, developing and representing knowledge. To that end it became and continues to be a system of categorising knowledge versus the rest, for example, science versus art, science versus religion, science versus superstition, etc. In that way an assertion of “scientificism”, that is, the use of scientific method has become the measure to claim and establish validity. This is because, in that model, what is scientific is also deemed to be logical, rational and valid. It can therefore make a claim to exclusivity of correctness. Consequently proponents claim that Western medicine represents the single correct view which originates from its scientific basis. Conversely, that which is unscientific cannot validly make a claim to correctness and is consequently not valid. This pushes the IMK system to the margins as it fails to conform to the WSK model thereby negatively affecting its claims for protection.

5.4.5 STRUGGLES FOR VALIDITY AND PROTECTION

In the absence of a chance to make a sustainable claim to validity IMK systems were marginalised and could not make a valid claim for protection. The WSK system was capable of making the claim for protection because it successfully claimed validity by placing itself in a position of superiority and gained overwhelming dominance. It was therefore relatively easy to assert protection for western scientific knowledge informing and underpinning the western medical system. Conversely the alleged invalidity of indigenous medical systems meant that no systems of protection were developed for the IMK system that informed its growth and maintenance.

The contribution of WSK to human understanding of the world is unquestionably significant (Harrison-Chirimuuta 1998: 46). The issue is not to question its utility but the attempts to close spaces for alternative systems. The problem however is that the successes of Western medicine may have led to the strengthening of the view that WSK holds the claim to truth and legitimacy over other systems of knowledge. This has galvanised the historical claim of the superiority of WSK against the inferiority of all others that do not measure up to its criteria. In most colonial territories Western medicine was spread and imposed by force without prior consultation or consideration of the views and values of the people in different communities. Western medical practitioners were “exponents of an alien and supposedly superior system of knowledge” and sought to reshape the mental universe of the Indigenous Peoples and claim universal legitimacy and validity for their scientific worldview (Waller and Homewood 1998).

Nonetheless it is important to note that the WSK system is not a monolithic entity. The famous clash between the London and Liverpool schools of tropical medicine at the turn of the 20th century over matters of scientific theory, procedure and the role and objective of medicine in tropical colonies is an example of the differences within this system (Arnold 1988). However, even in the presence of discordant voices within, they were largely private as the system presented the public face of a monolithic and authoritative body of knowledge (ibid.).

5.4.6 CRITICAL VOICES CHALLENGING THE WSK SYSTEM

Although there has been a dominant view that western medicine brought benefits to indigenous communities, recently there have been challenges to this view that privileges the benefits (Cunningham & Andrews 1998; Chavunduka 1994). This can also be interpreted as a challenge to the WSK system as the body that is at centre of the modern medical system.

The two principal lines of criticism of this traditional view are that:

- i. While colonialists were health agents in a number of ways, they were also disease agents. They were health agents because they brought in new systems of medicine. However they also brought in diseases that changed the ecology of colonised territories (Tuhiwai-Smith 1999). Some of the diseases were of such a nature that the indigenous populations did not have resistance to them

(Chavunduka 1994). There was also alteration of the local habitats through growing monocultures of crops, plants and animals for commercial purposes (Shiva 2000).

- ii. Secondly, Western medicine was imposed as an alien form of knowledge and did not take into account the cultures and pre-existing medical systems in the indigenous territories (Arnold 1988). The settler communities wilfully dismissed aspects of local knowledge that may actually have been useful in combating disease. This denial was in part an act of cultural condescension. (Cunningham & Andrews 1998)

While acknowledging that knowledge is a site of struggles the new voices advocate a new approach that is characterised by the re-examination of the history of Western medicine in non-western societies. There is also a retreat from the simple, grand narratives that depicted the “confrontational triumphalism” of the West and its components (Waller and Homewood 1998: 69)⁸⁴. Such critical studies show the continuing resistance of the local knowledge systems.

5.4.7 METHODS OF ESTABLISHING SUPERIORITY

It is necessary to appreciate how the WSK systems were able to establish the positional superiority and hence push the IMK systems to the margins. There are various ways by

⁸⁴ An example of a grand narrative is a book by Gelfand, M. *Tropical Victory: An Account of the Influence of Medicine on the History of Southern Rhodesia* (Cape Town: Juta Press, 1953)

which the WSK established positional superiority over IMK. Colonialism succeeded by subjugating the local people in indigenous territories and the domination was spread to economic, social and cultural spheres (Chinweizu 1987). The analysis of these factors is important in the appreciation of the circumstances under which IMK systems were left exposed without protection.

5.4.7.1 EDUCATION AND MENTAL COLONISATION

The mental universe of the Indigenous Peoples was an important area of colonisation. It was an attempt to control the way people perceived themselves and the world around them. It involved an attempt to control their culture and their ways of relating to the local environment. In short, it was domination of the local ways of knowing and therefore a process of dismantling the IKS. It was in effect a colonisation of one knowledge system by another. Colonial education was the major agent of the domination as it marginalized the indigenous ways of knowing and advanced the cause of WKS as the only legitimate body of knowledge and therefore worthy of protection. Education was meant to be a tool to eliminate faith in traditional beliefs in what is described as an attempt at intellectual colonisation. In order to reduce reliance on traditional medicine it was not recognised as part of the curriculum by the health education system. Things and knowledge found in indigenous communities were treated not as existing forms of legitimate knowledge but as “discoveries” by the Western researchers.

In Africa, negative attitudes about IKS were implanted among both the foreigners and some local people who passed through the education system. The education system was carefully designed to exclude indigenous ways of knowing. The result was a lack of appreciation of indigenous systems by the educated and elite among the Indigenous Peoples. One scholar has lamented about,

“Third-world western trained doctors who show total disregard and disdain for the importance that herbal medicine plays in the world’s health system ... Some of these same doctors seem unaware that the major pharmaceutical houses are constantly searching for new active compounds from the medicinal plants of developing countries” (Ayensu 1983: 125)⁸⁵.

These people have failed to appreciate the wealth of knowledge in their local systems. The irony is that the system they look up to actually looks to the indigenous ways to extract elements in order to improve where modern medicine is lacking. The education system that denigrates the indigenous ways destroys their confidence and self-belief particularly with regards to indigenous ways of knowing. The present education systems centralise the power of WSK and keep the IMK systems in the periphery.

5.4.7.2 CULTURAL VIOLENCE AND LINGUISTIC IMPERIALISM

⁸⁵ Fanon also refers to the difficulty that Algerian medical doctors trained in Western medicine had in relating to their local communities (1965).

This domination extends deep into the realm of linguistic imperialism. Languages serve "as dynamic bridges between the past and the future and as vehicles for the continued and continuously innovative, transmission of a community's knowledge, beliefs, values and practices" (Maffi 2002: 386). There is a strong connection between linguistic diversity, biological diversity and indigenous knowledge. It is argued that "linguistic ecologies and biological ecologies are mutually related through human knowledge, use and management of the environment and through the languages used to convey this knowledge and practices" (ibid. at 388). Language is the main repository for indigenous knowledge, which have traditionally been stored and transmitted orally. When a language loses space and becomes restricted in use it gradually faces the danger of ceasing to be passed from one generation to another. This ultimately affects the transmission of knowledge that is stored and communicated through that language⁸⁶.

Thus, economic and political imperialism have operated together with cultural imperialism. Coombe states that,

“Cultural violence includes seizure of land, government suppression of Indian languages in residential schools, the expropriation of ceremonial objects for museum collections, the unauthorised excavations of indigenous graves and the collection of material culture by archaeologists, the definition and description of Native culture by non-native anthropologists...” (Coombe 1998: 232-3).

⁸⁶ Maffi adds that, it has been accepted that "losing one's heritage language(s) often implies losing the knowledge, beliefs, values, and practices that the languages encode(s) and convey(s)" (Maffi 2002: 390).

As people abandon their culture and mother languages in preference of the dominant languages such as English, French, Arabic, etc, this has led to the disappearance of the other languages⁸⁷. Maffi (2002) also notes that the indigenous and minority languages have been in a continuous state of decline given the dominance of the few majority languages that have historically been promoted as official languages in indigenous territories.

Indeed, most of these endangered languages are in the formerly colonised developing countries. As the eminent African writer, Ngugi points out,

“It makes them see their past as one wasteland of non-achievement and it makes them want to distance themselves from the wasteland. It makes them want to identify with that which is furthest removed from themselves; for instance with other people’s languages rather than their own” (Ngugi 1986: 5).

The language of teaching and communication was that of the new system⁸⁸.

⁸⁷ The African Union uses Arabic, French, English and Portuguese as the official languages. The BBC reported that during an AU conference in Addis Ababa the chairman, President Chissano of Mozambique decided to use the Swahili language. The BBC reported that most African leaders were baffled as they had expected the use of one of the designated languages and “[AU] Officials scrambled around looking for interpreters and President Joaquim Chissano offered to translate himself.” Swahili is one of the main African languages spoken by at least 100 million people. This goes to show how the local languages have to play a subordinate role to the more powerful languages introduced during colonialism. Linguistic imperialism still exists even at the highest levels of African structures of organisation. BBC report at <http://news.bbc.co.uk/1/hi/world/africa/3871315.stm> (last visited on 7/07/04)

⁸⁸ The author was told that some communities in Africa teach their children the English Language first in preference to the local languages. They only learn the local languages when they grow up. It is considered prestigious and elite to speak and write English well and many young people are ashamed to communicate publicly in their local languages. (Discussions with people in Harare, August 2001)

Ngugi also vividly illustrates the violence characterising the clash between the knowledge systems when he states that,

“one of the most humiliating experiences was to be caught speaking *Gikuyu* [local language] in the vicinity of the school. The culprit was given corporal punishment – three to five strokes of the cane on bare buttocks...” (1986: 6).

Similarly, in Canada at the schools where aboriginal children were forced to attend “native languages were prohibited, and many people have memories of severe beatings and punishments for “speaking Indian” (Coombe 1998: 235). It was a wider agenda aimed at marginalizing the indigenous way of life, including their knowledge systems. These statements add strength to the view that the local knowledge systems were displaced through violence and that the new systems were established through domination and conquest (Jeater 2001)⁸⁹.

5.4.7.3 USE OF THE LAW

The colonial state also used law as a way of subjugating the Indigenous Peoples generally and controlling their way of life. Law was applied as an instrument of suppression and creating a particular socio-economic order that suited the political interests of the colonising force. In New Zealand the state passed the *Tohunga* Suppression Act in order to suppress the activities of the *Tohungas* who were traditional leaders and experts in

⁸⁹ Similarly one can draw parallels with situations where Indigenous Peoples were forced to give blood and tissue samples for laboratory experiments in pursuit of WSK development (Tuhiwai-Smith 1999). They

their fields (Tuhiwai-Smith 1999). In Zimbabwe, the colonial state enacted the Witchcraft Suppression Act (1898) in order to suppress the activities of Indigenous Medical Practitioners (IMPs). It imposed criminal sanctions on the activities of IMPs. Quite clearly, “for more than a century the movement to professionalise modern scientific medicine has used the state to eliminate or drastically to curtail and subordinate other forms of practice” (Leslie 1983: 7). The Indigenous Peoples in South Africa shared similar experiences where a law prohibiting the activities of the IMPs was also passed. The colonial government suppressed and outlawed their spiritual practices in order to disrupt their integration (Coombe 1998). In that sense, the law was part of the instruments applied to suppress the growth and use of IMK systems. Outlawed knowledge and practices could therefore not be protected.

5.4.7.4 NEGATIVE IMAGES

IMK was also silenced by making negative and exaggerated accounts of the indigenous medical system and cultural life. The informal travellers’ tales about Indigenous Peoples found their way to the Western world and gradually assumed authoritative status about many aspects of their way of life (Tuhiwai-Smith 1999). Western science created the impression that IMK was all about witchcraft and superstitions ignoring the fact that IMK included empirical medical knowledge (Chavunduka, 1994). The terms used to describe IMPs were disparaging and enhanced the negative impressions of the tales. Such terms

also forced to submit to human and animal vaccination programmes without any prior consultation or attempts to get consent.

included Witch-doctor, Sorcerer, Magician, Diviner, etc. (Smith 1999; Chavunduka 1994).

As indicated earlier the western system also claimed the title “scientific” and consigned the “unscientific” tag to the indigenous systems that did not fit into its scheme or world-view. The indigenous systems and way of life were described as archaic, barbaric and primitive. These terms were not merely descriptive of the nature of the subject matter but were assertions of power and superiority of those making the descriptions. The structures that form and legitimise a system of knowledge while simultaneously subordinating the alternative ways of knowing demonstrate the link between knowledge and power (Shiva 1993).

The dominant knowledge system created an exclusive monopoly and refused to take other systems into account. Ultimately, as Shiva aptly puts it,

“Dominant scientific knowledge breeds a monoculture of the mind by making space for local alternatives disappear ... very much like monocultures of introduced plant varieties lead to the disappearance and destruction of local diversity” (Shiva 1993: 83).

Throughout the historical encounters spaces for indigenous systems and knowledge were restricted and their claims for protection were dismissed.

According to Coombe, in North America the central point of the fight against indigenous knowledge and culture of the Native was to extinguish cultural identity and autonomy. It was “denied, suppressed, and/classified, named, and designated by others” (1998: 233). She also quotes Sir John A. Macdonald who in 1887 stated, “The great aim of our civilisation has been to do away with the tribal system and assimilate the Indian people in all respects” (ibid.). Civilisation was always described from the Western perspective and that also had implications for the way in which IKS were perceived (Bujo 2001). For the reason that they were not civilised the knowledge was also not civilised and could not be defined as knowledge for the purposes of recognition and protection.

5.4.8 INDIGENOUS RESPONSES TO THE CHALLENGES OF THE WSK SYSTEMS

5.4.8.1 RESISTANCE

The major proposition is that when an indigenous system encounters the challenge of the new system there are at least three possible responses that arise. They might totally reject the new knowledge system and continue with their traditional way of life. Secondly, they might accept the new system on condition that they will be able to mould it to suit their own purposes. Thirdly they might totally accept the new system in which case they sideline their own local systems. A total rejection is unlikely because the institutional structures are constructed so as to make sure that the new system is forced upon the local

community. As shown in the last section, the new knowledge system is solidly supported to the extent that it is difficult for the local system to resist its force.

Notwithstanding the encroachment of western medicine and the underlying knowledge system, there was resistance by the local people and their knowledge systems. It was not resistance in ignorance or based on stubborn conservatism, but it was actually a challenge to the claims of WSK within their contexts. The indigenous medical systems survived the domination because the people believed in them and they were essential parts of their way of life. Their survival was also testimony to the fact that there some areas that Western medicine did not fully solve and there were areas that local medical systems were more useful. The passive and active resistance of the indigenous systems illustrates the contested nature of knowledge.

Therefore although the IMK systems were marginalised they sought survival through resistance. Despite the strength of the dominant WSK system and the institutional support that they receive from the state, the subordinated systems do not succumb completely. Due to the fact that they are deeply wedded to the peoples' way of life, they continue to have an impact and are resilient against the powerful force of the dominant system. The IMK systems have managed to survive in the face of great adversity. They also continue to struggle for space against the new dominant force and the current movement in which Indigenous Peoples across the world are asserting their rights and claims arising from the past injustices show the continuing strength of the struggles.

The responses may be illustrated by the reaction of African literature to the new systems and languages. In the literary world the issue of use of language as indigenous knowledge has been hotly debated. During colonialism some indigenous Africans that had gone through the education system were able to write and express themselves in indigenous languages.

5.4.8.1.1 TOTAL REJECTION

Some authors took the approach of total rejection. This is exemplified by Ngugi, the Kenyan writer who in *Decolonising the Mind* stated that,

“This book is my farewell to English Language as a vehicle for any of my writings. From now on it is *Gikuyu* and *Kiswahili* all the way.” (Ngugi 1986: 1).

The argument was that use of the new language and literature were taking the Indigenous Peoples "further and further from [them]selves to other selves, from our world to other worlds" (ibid.). Ngugi's reaction can be seen as an attempt by indigenous languages to reassert themselves and claim the spaces that had been taken by the foreign languages during the colonial period. Indeed in some African countries, the local languages have been totally displaced by the languages of the new systems. The rejection of the new languages in preference for the local is thus a form of resistance that is part of the wider struggle by indigenous systems to gain spaces and reassert the primary positions. The loss

of a language has direct implications for the survival of indigenous knowledge, which are invariably expressed in indigenous languages.

5.4.8.1.2 CONDITIONAL ACCEPTANCE

The other approach was to accept the aspects of the new systems that they found useful and to apply them to further their own interests without necessarily undermining their position. This conditional acceptance of the new system is exemplified by the approach of Marechera, a Zimbabwean writer who argued that,

“We use the metropolitan languages and turn them upside down, until it screams your screams (sic.). The writer should be mastering the language. The language should be the slave; we must brutalise it into our own shape. This is the best way to fight our former slavery. Every time we try, language escapes. And so we have to beat it again and again and to capture and punish it again and again” (quoted in Veit-Wild 1992: 150).

This approach offers the dimension of accepting a new system but only as far as it can be mastered to meet the demands of the local community. It accepts the inevitability of the contact with the new knowledge systems brought by the foreign settlers and argues that the best way is to harness the new system in such a way that it can meet and adapt to the local peoples' conditions and further their concerns.

However, the main theme of resistance remains intact in both approaches. Although this example relates directly to language clashes, the same approach can be seen in the local people's approach to western medicine *vis-à-vis* their local systems. Indeed the Indigenous Peoples of Africa accepted the positive aspects of western medicine but they refused to concede the central aspects of their local medical systems and their ideas about healing and survival (Gordon 2001: 166). They tried to make Western knowledge work for them, without rejecting their own systems. They accepted the changed realities without losing the central aspects of their own systems (Fanon 1965).

Nonetheless there are Indigenous Peoples who totally detached themselves from the local knowledge systems although they were in the minority. Like their mentors they too began to see the traditional systems as archaic, primitive and its followers in need of salvation from the new knowledge and religions. Research has shown that at least 90% of Zimbabweans who have adopted the new Faith and ways still use the traditional systems from time to time (Chavunduka, 2000)⁹⁰. They have not totally abandoned the indigenous ways. As such the dominant approach has been to take what is best at any given period depending on the circumstances.

Therefore, despite the clashes there were partial efforts to collaborate driven by the some scientific researchers' interest in the local knowledge systems and the desire by the local people to demonstrate the validity of their knowledge. However in most cases the state did not take this seriously and the overtures were spurned because the local system was

⁹⁰ As the field report will show in Chapter 8 some people who do not wish to be seen to be using the system publicly do so under the guise of darkness.

dismissed as superstitious. Thus opportunities for positive interaction were limited due to the domination of the colonial system. Even though there were possibilities for interaction and collaboration, they were not fully explored. The limited dialogue between the Western and indigenous systems has continued through to the post-colonial phase. Nonetheless despite the limitations, there was interaction through the process of research, championed by the non-Indigenous and educated Indigenous who saw potential value in the local knowledge systems. It demonstrates that despite the official rejection some WSK practitioners recognised the value of IMK but only as far as it could be incorporated into the WSK system. It is this extraction and incorporation of selected elements of IMK systems that is at the centre of the current struggles.

5.5 STRUGGLES BETWEEN KNOWLEDGE SYSTEMS AND KNOWLEDGE PROTECTION MECHANISMS

As postulated in chapter 4, in terms of the Struggle Thesis there is also a clash between knowledge systems and knowledge protection mechanisms. This also involves the encounter between protection mechanisms designed for different knowledge systems.

The idea is that the protection mechanism devised for the dominant knowledge system becomes part of the institutional structures created to augment its position. It becomes the dominant norm for the protection of knowledge and to that extent it subordinates the local protection mechanisms. The dominance of the foreign legal norms was the general trend

in occupied territories. The tragedy is that by displacing the local norms, it left IMK in a vulnerable position.

The study has identified the IP law system as the protection mechanism devised for the protection of the WKS as the dominant knowledge system. Although its roots go back to the 17th century it emerged more prominently during the same period of the Industrial Revolution in the 19th century (Yano 1993). The purpose was to protect and encourage the efforts of inventors, composers and creators of knowledge. It was aimed at rewarding the efforts and promoting innovation and development of knowledge in that particular system and so it responded to the requirements and values of that society. The idea was to promote knowledge to advance material progress within that society (Van Caenegem 2003).

The dominance of economic theories supporting the IP law system underscores the important influence of economic factors in the WKS (Whitt 1998). The Lockean labour theory has been used to support the proposition that where a person invests his labour into a given piece of work, that thing becomes his personal property (Drahos 1996). Marxist theory states that point that property is an instrument of power and the laws were created to augment the position of those who were in control of creative labour. In that regard IP law is seen as an instrument of asserting and strengthening the power of those in control of labour and the economic factor is a strong influence (ibid.). The indiscriminate application of IP law to different areas and knowledge systems ignores the local values and interests embedded in the other knowledge systems. Could it be that the

IP law system represents an instrument of securing power over the products of knowledge for those in control of the system or with access to its mechanisms? The potential incompatibility leaves them vulnerable to exploitation and hence the calls to fill the legal lacuna in respect of IMK. At present it suffices to point out that the success of the dominant legal order has significant implications for the different global knowledge systems as it is harnessed and imposed on them indiscriminately and this produces tensions over knowledge.

Despite the existence of these local mechanisms, the foreign legal orders have been used from the time of the encounter between the indigenous and non-indigenous people. In Zimbabwe, as in most of Africa for example,

“General (Western) law remains the dominant legal normative order when dealing with political, economic, commercial, property and criminal matters ... customary law is dismissed as backward because its approach is fundamentally different from the received law.” (Mohamed-Katerere 1996).

As with the dominant knowledge system, the colonial state was able to impose the foreign laws into indigenous communities thus displacing the local customary laws at the official level.

As a result most members of the academy in Africa are “aligned to the paradigm of western law rather than to indigenous systems of law” (Bentzon et al 1998: 23). The

colonial state was careful however, to selectively apply indigenous systems whenever those laws appeared to suit its agenda (Mamdani 1999). That system of selective application of customary law led to the misinterpretation and distortion of traditional institutions in indigenous communities. The efforts also caused the emergence of an “ossified and static picture of African customary laws” which eventually dislocated customary laws in both time and space. This has resulted in the emergence of two forms of customary laws in indigenous communities:

5.5.1 CUSTOMARY LAW OF THE COURTS

This is the official customary law that is also referred to as the state customary law. This version of customary law has resulted from the interpretations of the judicial system whose members are trained in the Western-oriented legal systems introduced in the indigenous territories. The judicial officers are not trained in indigenous legal systems and their interpretations have caused distortions of the traditional customary rules. The dominant legal system applies precedents in the determination of cases (Zvobgo-Dengu et al. 1995). The use of precedents and written forms of customary rules distorts their dynamic nature (Bentzon et al 1998). In some communities in Africa, customary laws were codified. The legal systems in Africa were observed through the lens of Western legal systems and authorities tried to mould them to suit the demands of their preferred system. The net effect of all these measures is the presentation of traditional laws as static resulting in failure to acknowledge the changes resulting from their dynamism.

5.5.2 LIVING CUSTOMARY LAW

This version is also known as the customary law of the people and differs significantly from the State customary law (Hellum 1998). This is the customary law of the communities that they apply on a day to day basis in their allocation of resources and resolution of disputes. It is revealed in the daily practices of the people and is markedly different from the static nature of the official version (Zvobgo-Dengu et al. 1995). It is fluid and changes according to time and space and differs from the customary law of the courts which is static.

The endurance of living customary law illustrates the existence of local mechanisms for the protection of knowledge and resources. The official version of the laws exemplifies the tensions and its consequences that exist when different legal orders meet. In a broader sense this also illustrates the plurality of legal systems and the tensions that occur between the systems as mentioned in the first part of this chapter. As a result the rights of Indigenous Peoples are often ill defined or even totally ignored by national and international legal systems.

The crucial point is that when a protection mechanism devised for one system of knowledge is applied to another system there is bound to be a conflict arising from the probable incompatibility. As Bentzon et al assert, there have inevitably been “collisions between externally imposed legal regimes and indigenous systems of law” (1998: 30). In this current study this may be tested by analysing the relationship between IP law and IKS by making enquiries as to whether IP law suits the situation of IKS? Can for

example, patent laws be used for the protection of IMK? This is a core subject of intense debate covered in the existing literature⁹¹. At another level the study also seeks an explanation of why a foreign legal order is applied to IKS. What are the forces pushing for the global application of dominant legal order? The wave of globalization has led to greater efforts to harmonize laws relating to knowledge creation, acquisition, use and dissemination. This has intensified the spread of IP law as the dominant legal norm in the global system. The TRIPS Agreement provides an illustration of how a dominant protection mechanism is imposed on a wide area both geographically and knowledge systems generally (Drahos 2000; van Caenegem 2002). It may be interpreted as being insensitive to the diverse systems that exist in many parts of the world. Why is this so? What have been the responses of the marginalised? These are issues that require further analysis⁹².

5.6 CONCLUSION

This chapter has pursued in greater detail the socio-historical analysis of the relationship between knowledge systems in indigenous territories. This is critical because it demonstrates that the key problems facing researchers and policymakers are embedded in history and a search for solutions to the problems requires more comprehensive and holistic approaches. The struggles that Indigenous Peoples face are not simply about allocating profits from the use of their knowledge and resources, but have deep historical roots that must be acknowledged and dealt with. The fact that there exists a large measure

⁹¹ Refer to Chapter 7 below which assesses the applicability of IP law to IKS.

⁹² An answer to this question can be found in Chapter 7

of protection for WKS while IKS are unprotected is grounded in the manner in which the knowledge systems have interacted through their practitioners and the manner in which they have been treated by institutions including the state. At this stage, having discussed these historical struggles of the knowledge systems, the next chapter carries on by focussing on how the knowledge systems have existed and been treated in Zimbabwe. It will focus on the struggles between the IMK and the WSK from the pre-colonial to the present post-colonial period.

CHAPTER 6

POWER, STATE AND THE INDIGENOUS MEDICAL KNOWLEDGE SYSTEMS IN ZIMBABWE

6.1 INTRODUCTION

This chapter discusses the position and treatment of IMK systems within the institutional framework of Zimbabwe. It also discusses the relationship between the WSK and the IMK systems from the time of the encounter largely during the colonial period to the present day in Zimbabwe. The aim of the investigation is to explore and understand how the IMK systems have been treated by the state and assess whether the findings are consistent with the ideas put forward in the "Struggle Thesis". This discussion substantiates the central argument that the marginalisation and consequent lack of protection mechanisms for IMK as a knowledge system can be traced back to the policies that shaped the marginalisation of Indigenous Peoples in political, cultural and socio-economic terms.

The relationship between IMK and WSK systems and the differential treatment by the state can be fully appreciated within the general context of the radical change from the indigenous governance structures to the colonial state's treatment of Indigenous Peoples and their institutions through to the transformation to the independence state. The investigation of the place of IMK within the state and institutional structures is not an

isolated exercise but one that is inextricably intertwined with the ways by which the Indigenous Peoples have been governed during the different historical phases.

Interestingly, as this chapter will demonstrate, despite political changes in the post-colonial governance regimes, in reality the attitude of policy makers and the treatment by the state have not changed much from the colonial period. The lack of any protection mechanisms has therefore continued even after the attainment of political self-determination by the local indigenous communities in Zimbabwe. Consequently the conditions that led to the marginalisation of IMK systems have persisted. Although there have been some legislative changes in response to international developments, the policies are yet to be implemented on the ground and the legal rules need further revision. This chapter explores why the colonial order has not changed fundamentally and suggests that the change in personnel in the seat of government was not accompanied by a change in the mentality and policies of those in power. The patrimonial state acts as the guardian of the people and relegates their individual claims to the margins. The new post-colonial state lacks the political will to effect genuine and positive changes for the indigenous communities that they purport to represent.

The data presented in this chapter is based on historical literature, documentary evidence, interviews, observations collected during the fieldwork investigations in Zimbabwe. For purposes of assessment of the treatment of IMK systems by the state and the relationship between the WMK and IMK systems three phases in the historical evolution of the state

in Zimbabwe can be categorised. The three categories are firstly Pre-Colonial phase, secondly the Colonial phase and finally the Post-Colonial phase.

The chapter also discusses the research activities into IMK systems that have been taking place in Zimbabwe. Historically there have been contacts between the WMK and IMK systems through research. In that sense research into IMK systems is not a new phenomenon in Zimbabwe and it is important to understand why the criticism against scientific research has become more prominent in the present period.

6.2 THE PRE-COLONIAL PHASE – GOLDEN AGE FOR THE IMK SYSTEM

Zimbabwe became a British colony in 1890. Prior to colonisation Zimbabwe was divided into a number of different chieftainships spanning the area of Mashonaland in the central and northern areas and the Ndebele kingdom in the southern districts. In the pre-colonial era holders of IMK enjoyed high prestige within the community⁹³. They were accorded high positions within the local structures because they were responsible for the health of the nation. Consequently IMK was highly valued as a resource within the communities. The practitioners of IMK performed many functions in the traditional state system⁹⁴.

They were medical specialists who treated disease and illness among the people and domestic animals. They also acted as counsellors and political advisors to the traditional authorities. They helped the military during war time and they also assisted hunters when

⁹³ Chavunduka Unpublished paper on file, Mpande, Paper presented at a conference 2000

they went on their expeditions. They led rainmaking ceremonies and were responsible for helping farmers as they were believed to have powers and knowledge of medicines/charms to increase yields and prevent pests and diseases⁹⁵. As the link between the spiritual and living worlds, they were also religious and cultural leaders and were therefore highly revered. Many problems that affected the community were always referred to them and hence they performed a significant role within the community.

The community also took the role of the body that validated an IMP's qualifications and disciplined errant practitioners. The procedure of being admitted to become a practitioner which is described in more detail in Chapter 8 illustrates that in order to start work in the community, certain rituals that involved the community needed to be performed.

It was also the only system of medicine known to the Indigenous Peoples. Consequently there was heavy reliance on that system and structures were created to protect it. The community played a crucial role in the preservation of knowledge by adhering to the systems meant to preserve biological diversity. At that time people also fully believed in the traditional African religion and that ensured that cultural values were upheld⁹⁶. The protective mechanisms for IMK were based on the traditions and customs in traditional society. That ensured that the people who believed in it and adhered to its callings were able to uphold the protection systems.

⁹⁴ Interview with Dr Pius Nyambara at the Department of Economic History at the University of Zimbabwe.

⁹⁵ According to Mbuya Maromo, "It is difficult for many foreigners to appreciate but it is well known that n'angas have charms that can help a farmer achieve great yields. There is one that is known as the *bandika* a local farmer here used it but it also has dangerous consequences such as that one of your daughters may never get married."

⁹⁶ Interview with Mbuya Makwinja in Gandamasungu

Overall, evidence shows that during the pre-colonial phase, the state and IMP enjoyed a healthy relationship and each was dependent on the other. In this respect, the role of the knowledge structure as a source of power is quite evident. As specialist knowledge holders, they had power in the community and the traditional authorities supported them because the knowledge structure helped to maintain their authority. The state always needed the backing of those that communicated with the spiritual world. That knowledge system was important as it backed up the state system. The status of IMK was high and its protection was highly encouraged and supported by the norms and customs that prevailed in the system. Its legitimacy was unquestioned and it therefore deserved protection from losses or desecration⁹⁷.

6.3 THE COLONIAL PHASE – ENCOUNTER, STRUGGLE AND MARGINALISATION (1890 – 1980)

When the British colonised the territory that is now Zimbabwe in 1890, the traditional institutions were still intact. In order for the mission of colonialism to succeed it was necessary to change the whole social fabric⁹⁸. The colonial state encountered physical resistance from the indigenous communities. It was relatively easy to settle in the *Mashonaland* areas in 1890 but they encountered the *Matebele* resistance in 1893. They were able to crush the resistance and that led to the demise of the *Matebele* Kingdom.

⁹⁷ Interview with Professor Chavunduka in Harare

⁹⁸ Interview with Dr A. Mlambo Department of History at the University of Zimbabwe

There were more widespread and protracted battles commonly known as the First *Chimurenga* during the period between 1896 and 1898. The First *Chimurenga* was inspired and led by the spirit mediums and traditional leaders such as *Mbuya Nehanda* and *Sekuru Kaguvi* who remain legendary heroes in the history of the country. Significantly these leaders were the holders and custodians of knowledge within the communities. The indigenous communities were defeated in battle by the settlers and the colonial state was firmly established. It is significant that the state ensured that the spiritual leaders were publicly executed probably to demonstrate the weakness of the local systems⁹⁹.

Despite the physical domination, there was further resistance that came in passive forms. The Indigenous Peoples did not abandon their traditional way of life spurred on by their beliefs and their knowledge systems. It became necessary to extend the colonial enterprise to the mental phase as well¹⁰⁰. Colonialism introduced both institutional and normative changes in the way the people were governed. This involved the application of norms that were external to the local communities and there was complete domination and weakening of the local and traditional institutions and authorities¹⁰¹. The colonial authority and structures replaced the local traditional systems.

The legal regime that was introduced ignored the existence of the traditional legal systems and normative structures. By the *Administrator's Proclamation No.1 of 28th*

⁹⁹ Interview with Dr Nyambara

¹⁰⁰ Interview with Sekuru Sibanda

¹⁰¹ According to Professor Chavunduka, the colonial state only kept those traditional structures to suit their system of indirect rule as and when it suited their purposes.

September 1890, the colonial authority declared that the laws of the Cape Colony were to be the applicable law within the new territory (Palley 1966: 493). The High Commissioner in charge of Southern Rhodesia then issued an order on 10th June 1891 that introduced the law in force in the Cape colony of Good Hope into Southern Rhodesia. That clause was repeated in the Constitution of 1923 and subsequent constitutions. The present Constitution in post-colonial Zimbabwe adopts the same clause in section 89. While the clause did not specify the exact character of the law then prevailing in the Cape colony, clearly it was not the traditional laws of the Indigenous Peoples. The effect has been that it bequeathed the Roman-Dutch common law as the law of Zimbabwe (Christie 1985; Palley 1966). The law of colonial Zimbabwe is therefore the Roman Dutch common law, subject to statutory changes. However because the colonisers were the British, there was a lot of English law influence particularly in the commercial and property areas (Nkala & Nyapadi 1995).

The African Customary law was only preserved in certain areas such as personal and family laws subject to the fact that the customs and rules were not considered repugnant. In areas such as property law, the new laws prevailed as it was considered that the Indigenous Peoples did not have property systems especially with respect to certain kinds of property such as immovables. *In Re Southern Rhodesia*¹⁰² is the landmark case that cemented the thinking that there were no conceptions of property among the local people of Zimbabwe. The court held that the *Matebele* or *Mashona* peoples had not “progressed” enough to recognise ownership or transfer of property such as land. Consequently the

¹⁰² 1919 AC 211

settlement of the Europeans was perfectly legal because there were no prior claims to the property. The court also stated that,

“The estimation of the rights of aboriginal tribes is always inherently difficult ... Some tribes are so low in the scale of social organisation that their usages and conceptions of rights and duties are not to be reconciled with the institutions or legal ideas of civilised society. Such a gulf cannot be bridged. It would be idle to impute to such people some shadow of the rights known to our law and then to transmute it into the substance of transferable rights of property as we know them (sic)” (ibid. at 218).

The court emphasised that the rights of the Indigenous People were uncertain but were closer to the lower end. Although this was a case dealing principally with landed property it is used here as an indication of how the Indigenous Communities systems and relationships with the assets and resources around them was perceived by the colonial system. It is difficult to imagine how the system could have accorded any rights in relation to intangible assets such as knowledge especially given the lack of regard they had about it.

Although this decision was essentially about land ownership, the impact resonated in other areas as the settlers developed the conception that there was no concept of private rights or entitlements among the indigenous communities¹⁰³. The indigenous communities were displaced from their traditional territories and were placed in marginal areas to live on a communal basis.

Colonial governments and early Christian missionaries despised IMK systems, which they saw as a stumbling block to the penetration of Christianity and colonial influence¹⁰⁴. They went further and tried to discourage the use and practice of that type of medicine. This was regardless of the fact that this was the system of medicine that had sustained the indigenous populations for centuries. At the same time colonial medicine was introduced in the communities. Medical practitioners assisted the settlers to cope with disease and other adversities. The colonial state also sought to use medicine as a tool to convince the Indigenous Peoples of the superiority of western civilisation and the indigenous medical system was portrayed as a backward system to be abandoned¹⁰⁵. While the local communities accepted western medicine, they did not abandon their system of medicine. The efforts to marginalise indigenous medicine succeeded at the official level but on the ground the people continued to rely on it¹⁰⁶. There were several reasons for the state's policy of marginalising IMK systems.

6.3.1 REASONS FOR MARGINALISATION

The reasons for marginalising IMK systems range from political, religious to economic considerations. The new colonial state was keen to revamp the social structures and they realised that weakening the power of the local knowledge system was a key part of that process. The local knowledge system and the holders of that knowledge had a great

¹⁰³ Interview with Mr Muzvondiwa, a legal practitioner in Harare.

¹⁰⁴ Interview with Dr Nyambara

¹⁰⁵ Interview with Dr A Mlambo

¹⁰⁶ Interviews with Professor Chavunduka and Dr Nyambara

influence on the people and that needed to be dismantled. Specifically, the reasons for marginalisation include:

- i. Ignorance
- ii. Ethnocentrism
- iii. Religion and Association with Witchcraft
- iv. Economic Considerations
- v. Political Considerations

They shall be examined below.

6.3.1.1 IGNORANCE

Chavunduka believes that the early Europeans in indigenous communities were ignorant of the power and value of IMK systems¹⁰⁷. According to Mr Mhlanga,

“If the settlers had taken time to understand the systems they might have been a better relationship from a very long time ago. It is only after some years that they realised that the indigenous medical system actually serves a crucial role in the health of the local people. Even now, they realise that they can get good medicines from those medicines used by the people for a very long time.”¹⁰⁸

¹⁰⁷ His views were echoed by other interviewees who also think that if the Europeans had appreciated the strength and value of the systems they might have taken them seriously and supported them.

¹⁰⁸ Interview with Mr Mhlanga in Mahusekwa

They had come from a different way of life and may have had the genuine belief that only the Western Medical System (WMS) was legitimate and valid. There was no appreciation of a totally different knowledge system. The potential that it could make crucial contributions to the health needs of the people was not appreciated and hence the dismissal of the system. The indigenous systems were simply dismissed as archaic and primitive without taking the opportunity to appreciate them¹⁰⁹.

6.3.1.2 RELIGION AND ASSOCIATION WITH WITCHCRAFT

The missionaries realised that IMK systems were linked to the religious and spiritual beliefs of the people. They saw it as a hindrance to the spread of Christianity as it encouraged worshipping of ancestors instead of the Christian God. However they failed to appreciate the difference between witchcraft and genuine medicine¹¹⁰. Due to ignorance everything was grouped in one frame. Thus the practitioners of indigenous medicine were referred to in such disparaging names as sorcerers, witchdoctors etc. They did not realise that in the traditional system the locals had their *Mwari* – the equivalent to the Christian God and therefore that these people had their own valid religion and culture. In order to make in-roads for Christianity, they had to destroy the local religious beliefs

¹⁰⁹ Interview with Sekuru Sibanda, “The Europeans did not think that we had anything worthy of recognition. To them we were just backward and needed to be brought into their world. They were ignorant of the fact that we also had systems that actually worked. But later on when they realised that the people did not abandon their ways, they became interested and some began to ask us about our medicines, our art, music etc ...”

¹¹⁰ According to Professor Chavunduka, there was a misunderstanding between the concepts of witchcraft and medicine. In traditional society, witches are considered as the evil agents that cause disease and misfortune. Witches are real people who are possessed by bad spirits and use bad medicines to harm others. IMPs on the other hand try to neutralise the effects of the witches actions. In traditional society witches were punished heavily. When Europeans came they did not distinguish between witches and medicine men

and since these beliefs were connected to the local IMK system it also meant dismissing that system of knowledge. There was a strategy of encouraging Christianity by linking it with the spread of western medicine and education. Father Shropshire is quoted as having commented that,

“The whole reputation of the mission or even of the church may depend on that mission being able to render the medical aid that people need at any particular moment when faith in the white doctor or nurse becomes strong” (Chavunduka 1994: 6)

This attempt to link religion to medicine meant that the spread of Christianity needed the destruction of the IMK system to which the indigenous religion was connected. It required the success of the western medical system and for this to happen there was also need to convince the local people that the indigenous medical system was primitive¹¹¹. They would be forced to use the western system and become accustomed to it. Most churches established mission schools and hospitals and despite the differences of their backgrounds and underlying belief systems, in the eyes of the Indigenous Peoples they represented a single entity¹¹².

6.3.1.3 ETHNOCENTRICISM

and decided to ban all of them. But you cannot ban witches – you have to have people who can treat the illnesses and stop the misfortunes they cause.”

¹¹¹ Interview with Sekuru Jambaya in Harare.

¹¹² In Zimbabwe most of the popular centres of education were founded by the church and they also include mission hospitals. In the area of research there were 5 mission schools and three mission hospitals.

According to Chavunduka the phenomenon of preference for the familiar played an important role in that it encouraged the despising of what was unfamiliar¹¹³. The European settlers were used to the western medical system and they believed that only that system worked. It was not easy for them to understand all the elements of indigenous medical practice¹¹⁴. In their eyes the indigenous systems that they did not understand was mere superstition. Superstition was to be despised and therefore the IMK system was sidelined as work of quackery. It followed that in their eyes, it was the medical systems they brought in that they respected and believed in.

6.3.1.4 ECONOMIC CONSIDERATIONS

There is a feeling among the local people that the colonial state was also keen to suppress the indigenous medical system and promote the western medical system for economic reasons¹¹⁵. The colonial administration and the missionaries may have genuinely believed that only their system could work but they were interested in forcing people to depend on the Western system¹¹⁶. This meant that the users would be forced to depend on Western medicines and this dependence produced benefits to Western pharmaceuticals. Relying on the indigenous system would reduce the population that needed the drugs from the pharmaceutical companies. Even today the practitioners believe that the suppression of

¹¹³ Interview with Professor Chavunduka and also echoed in an interview with Professor Gundidza

¹¹⁴ According to Mr Mushita even today it is not easy for everyone who does not know the system to understand and appreciate all its elements. There is always skepticism about whether the claims made by the IMPs are actually valid. In an interview with Professor Chavunduka he also stated that while the herbal side of indigenous medicine is easier to appreciate, people do not always understand the spiritual side.

¹¹⁵ Interviews with Dr Mlambo, Professor Chavunduka and Sekuru Sibanda

¹¹⁶ According to Sekuru Jambaya, "While we do not deny that the western medicine they brought was useful for our people, we also think that there were ulterior motives for promoting their system of medicine

their medical systems is meant to bolster the power of the western pharmaceutical companies¹¹⁷. Meanwhile this adversely affects the local medical systems and consequently the IMK system, which is the base upon which these systems are built.

In addition the improvement of health of the Indigenous Peoples was also important to facilitate a strong labour force for the colonial enterprise. It was important to introduce western medicine since it was seen as an effective way of ensuring that the workforce was healthy and able to cope with the demands. Thus at most centres of economic production hospitals were introduced. New medicines were also needed for livestock and crop production. However the role of indigenous medicine in this scheme was marginal and was not harnessed by the authorities. The local people believe that they could have treated some of the problems that faced the people. They also accuse the settlers of introducing new diseases hitherto unknown in the indigenous communities¹¹⁸. The fact that the IMPs could not treat them was not because their system was poor but simply that these were new ailments that they were trying to come to terms with. Nonetheless the role of the IMS as a probable compliment to the conventional medical system was not properly appreciated.

6.3.1.5 POLITICAL CONSIDERATIONS

while dismissing ours. We depended on our practice and dismissing it and discouraging people from using it would reduce our gains while boosting their system. We think that was unfair.”

¹¹⁷ Interview with Sekuru Jambaya

¹¹⁸ They listed sexually transmitted diseases like syphilis, gonorrhea and other livestock diseases that afflicted the local communities on encounter with the settlers.

As indicated earlier, IMPs held important positions of power within the traditional structures. The indigenous knowledge structure was closely connected to the institutions of power and authority over the people. Therefore specialist knowledge holders commanded respect and were revered by the people. Indeed, the Indigenous Peoples' rebellions in 1896-8 were led by spirit mediums and other traditional leaders that were part of the knowledge structure in the community. The public executions of two powerful spirit mediums that participated in the war, *Mbuya Nehanda* and *Sekuru Kaguvi*, were symbols of the dominance of the colonial authorities and the weakness of the indigenous belief systems¹¹⁹. As they were perceived to encourage resistance the practice of indigenous medicine was put under severe pressure and the IMK systems consequently suffered. Politically the IMPs were a threat to the new colonial system as they wielded authority and were powerful voices among the local population. They were centres around which local resistance could be mobilised and hence outlawing their activities was a measure of putting down resistance. The marginalisation of IMK systems was therefore part of a scheme to firmly establish power and political control. As centres around which power revolved, the IMK systems had to be dismantled and hence the marginalisation.

6.3.2 MEASURES USED TO MARGINALISE IMK SYSTEMS

A number of measures were used to break down and sideline the IMK system during this period. In the Struggle Thesis a number of propositions were put forward to suggest how the encounter between the WMK and IMK systems were defined by struggles leading to the dominance of the WMK system. The evidence from the research exercise in

¹¹⁹ Interview with Mr Chirume, a history teacher in Harare.

Zimbabwe confirms that certain measures were applied to sideline the IMK system and establish the dominance of the WMK systems. The following are specific to the Zimbabwe situation:

- i. Christianity and Western Education
- ii. Increasing the State and Mission Hospitals
- iii. Law
- iv. Negative Images and bad publicity

6.3.2.1 CHRISTIAN EDUCATION

The provision of Christian education was seen as a strong way of changing mentalities and beliefs among the Indigenous Peoples. In 1938 a priest called Father Shropshire commented that,

“Not until a truly Christian and scientific education has corrected the balance of the present native psychological complex and enabled the Africans to meet their phobias with critical mind ... will they throw away the beliefs in magic and sorcery” (quoted in Chavunduka 1994: 7).

The traditional beliefs are closely connected to the IMK systems. It was therefore believed that when the belief systems of the local people changed they would stop using the traditional systems and would consequently abandon the indigenous medical system. If this succeeded, it would lead to the demise of the IMK system. The local people were

advised to abandon the tradition of worshipping the ancestors and to avoid consulting the IMPs as the practice was ungodly¹²⁰. The church largely continues to preach against the traditional belief systems, which are a crucial part of the IMK system.

While the use of Christianity did not entirely eradicate the local traditional beliefs many Indigenous Peoples were converted during the colonial period. In attempts to cope with Christianity without entirely abandoning their traditional systems some people formed their own churches. Thus in Zimbabwe today there are many churches that grew within this context¹²¹. In addition many of the people who converted to Christianity did not entirely abandon their traditional beliefs but continued to consult IMPs in times of need. According to Sekuru Kwenda,

“The fact is that we all recognise that there is God. How we worship him is different. It does not mean that if I go to church, I will abandon the traditions. Many of our people continue to use both systems. These are just different ways of reaching the same Father”¹²²

In addition to the traditional IMPs there is now a proliferation of healers who call themselves “Faith Healers” According to ZINATHA most of the people who claim to be

¹²⁰ Interview with Mr Kanda in Harare. Mrs Chando does not believe in the traditional systems and believes that the practices are ungodly and that IMPs are agents of evil.

¹²¹ Interview with Mr Munyoro

¹²² Interview in Harare. Professor Chavunduka also echoed the same sentiments when he noted that “If you go to the hospital you will see many people with traditional medicines that they are taking secretly for their relatives in there. Also many people who claim to be staunch Christians and despise traditional beliefs systems are regular customers at IMPs places of practice although they come either at night or in disguise so that they are not seen in public. There is a lot of hypocrisy” General discussions with worshippers at the Roman Catholic cathedral in Harare also showed that people continue to use the traditional systems.”

Faith Healers are actually IMPs from the traditional system now practising under the guise of Christianity. To that extent, Faith Healers are a genre of IMPs¹²³. All in all despite attempts to break down the IMK system through Christianity, the systems have survived and continue to be used by people from all religions.

The colonial education system was weighed heavily against traditional education systems. People were forced to learn foreign languages and to use the foreign languages in their studies and communication. Thus the English Language became a dominant language and the indigenous languages were only limited to domestic use. Western science did not venture to understand the local systems. According to Mr Mushipe, what they did in school was different and removed from their daily realities and hence most local children struggled through the system. The system excluded the traditional ways of learning and much of the content was foreign to the Indigenous Peoples. The elders lament that education succeeded in large measure to convert the local people and turn them against their traditional systems¹²⁴.

6.3.2.2 INCREASING HOSPITALS

The colonial state introduced hospitals and clinics in centres of production and urban areas. This was meant to advance western medicine and provide the health services to the

¹²³ Interview with Sekuru Sibanda

¹²⁴ According to Mbuya Makwinja, “Many of you young people have really been turned against our way of life. You laugh at our ways of treatment and healing but you forget how we came to be what we are. It was through these ways that you despise. Many people train to be scientists but instead of learning from the knowledge we have here, they are busy trying to do other things. It would be good if the government encourages people to learn from indigenous medicine at school so that they can appreciate from an early age. There is so much that these old men and women like me can teach you.”

people on a large scale. Besides the benevolent desire to help the people generally, local people also believe that it was also meant encourage people to use western medicine and demonstrate superiority¹²⁵. It was hoped that eventually people would see the evil of indigenous medicine and would abandon their ways that were considered to be barbaric and archaic. The spread of the WSK system would eventually outshine and overshadow the IMS and the IMK system would succumb to the pressure as well.

6.3.2.3 LAW

The law was used as an instrument of repression in many ways within the colonial state. The advent of the colonial rule brought in new laws created by the colonial state mostly in the mould of the laws of the mother country. The Indigenous Peoples were forced to comply with and use these laws and they were also deprived of their rights through the law. The discrimination and marginalisation of the Indigenous Peoples was legitimised through the use of the legal system.

In the area of IMK and beliefs the state passed the Witchcraft Suppression Act in 1898. That Act is still in force and has continued to be a point of contest between the state and IMPs. IMPs believe that the Act was designed to suppress the work of IMPs¹²⁶. The Act imposes criminal sanctions for conduct that is part of their practice. It does not clarify the difference between witchcraft and genuine traditional medicine. For example it prohibits the naming of persons as witches. Since the work of IMPs necessarily involves dealing

¹²⁵ Interview with Mbuya Chikomo. According to Mr Mhlanga the hospitals discouraged use of traditional medicine. Children at school were also advised against using traditional systems.

with witches and exorcising evil, the ban was tantamount to banning the practice of indigenous medicine in general. The Act represents an attempt by the colonial state to use the law as means of controlling people's belief and knowledge systems.

In addition, the Medical Council of western medicine in colonial Zimbabwe did not recognise IMPs as medical practitioners because the system of medicine they practised was not recognised as a knowledge system. The state did not create space for the recognition of traditional medical practice and attempts to find that space were thwarted. This was despite the fact that indigenous medicine continued to play an important role in helping the health needs of indigenous communities. The indirect discrimination of indigenous medicine extended to the workplace. While labour laws could be used to excuse an employee to take leave to consult a conventional medical doctor the same leave could not be extended if he wanted to consult an IMP¹²⁷. While the western medical doctor's note was acceptable that of the IMP was rejected as evidence of having visited a doctor. These measures had the effect of casting a bad reflection on the local medical system and also the local knowledge system that sustained it. They also ensured that the local systems remained outside the margins of the legal and acceptable from an official perspective. The law was also used to deny the indigenous communities any claims to land and resources within their territories. In the case of **Komo v Leboho and Holmes** **NO**¹²⁸ the court held that rights of ownership was a form of title that was unknown to Native law.

¹²⁶ Interview with Professor Chavunduka

¹²⁷ Interviews with Mr Muchengetwa and Professor Chavunduka

¹²⁸ 1935 SR 86 (Southern Rhodesia)

6.3.2.4 NEGATIVE IMAGES

The use of bad publicity and disparaging terminology is one way in which IMK systems have been placed in bad light. IMPs have been variously called sorcerers, magicians, witchdoctors, diviners etc. According to Chavunduka and Sibanda, these terms were simply meant to cast IMPs in bad light. This also had negative implications on the knowledge system they used and represented. The empirical nature of their medical knowledge was ignored and their system was defined as being merely superstitious. This language changed ways in which some of the people in the indigenous communities viewed their knowledge systems as it was considered inferior and primitive.

According some interviewees, they would rather go to an IMP disguised or at night than be seen by colleagues because it is considered to be a primitive and archaic system¹²⁹. Among some people the high regard with which the system and practitioners were once held in the pre-colonial days waned during the colonial period due to the wide-ranging tactics to undermine it. Nonetheless IMK systems survived under harsh conditions during the colonial period. It was poorly regarded and there were no efforts to promote it or harness its potential at the official level. The state did nothing to promote IMK but rather worked hard to suppress and sideline it from the mainstream.

6.3.3 RESISTANCE OF THE IMK SYSTEM

¹²⁹ Interviews with workers at a Harare law firm

Despite the widespread measures to outlaw and sideline the IMK systems, there has always been resistance from the Indigenous Peoples. The indigenous communities did not abandon their systems of knowledge. Beyond the official lines the local knowledge systems continued to flourish. To this day IMPs remain important traditional leaders and are still consulted by people from all walks of life. The adoption of new cultures and religions by some sections of the indigenous communities has not completely altered their beliefs in the system significantly. However, most people continue to use both the modern and traditional systems of medicine. The fact that the use of IMK systems is so widespread despite the impediments shows the resilience of the IMK systems in the face of the most adverse conditions.

6.3.3.1 ACTIVE RESISTANCE THROUGH ORGANISATION

The Indigenous Peoples also took active participation in the campaign to defend their systems. One form of active resistance was demonstrated by the formation of associations to represent the interests of the IMPs¹³⁰. The IMPs were always keen to prove that their medical systems were useful and valid. They realised that they needed to organise and present their views to the state and other sectors¹³¹. The loose coalitions represented by their traditional annual gatherings were no longer effective given the advent of the new players who represented a major challenge and were keen to displace them. The new colonial medical systems were dominating the scene while the voices of the local medicine men were less effective because they were not organised and having seen the

¹³⁰ Interview with Professor Gundidza and Professor Chavunduka

¹³¹ Interview with Professor Chavunduka

efficacy of the united voice of the new medical systems they also sought to present a counter voice.

Thus in 1957 they formed the African N'anga and Herbalists Association. However their efforts were unsuccessful because there was lack of organisational skills that could be used to compete with the new systems. There was also greed among the players, which led to splits within the organisation¹³². The new colonial systems had introduced a new economic system within which IMPs had to survive along with the rest of the community. The initial split led to more splits that produced an amoeba-like phenomenon. By the time of independence in 1980, there were six different associations namely:

- i. African N'anga and Herbalists Association
- ii. Central African Chirembas Association
- iii. N'anga Burial Society
- iv. Central African N'anga Association
- v. United N'anga Association
- vi. True African N'anga and Herbalist Association of Central Africa.

These divisions weakened the cause of IMPs. There were too many different voices and the unity that had been sought was not achievable under the circumstances. Nonetheless, the very existence of the organisations showed a desire on the part of the IMPs and the communities to support the cause of their systems against the dominance of the new

systems that had the support of the state. Within the context of the Struggle Thesis, it indicates the struggle of the IMK system against the dominant WSK system. It represents the will to survive the challenges of the new system and the determination to create space in the new environment. However despite these efforts the state refused to recognise them and the knowledge system that they espoused.

Despite the opposition of the colonial state, it must be noted that there were some individuals within the new systems who developed interest in the IMK systems. The more prominent individuals include renowned scientists and medical doctors like Professor Michael Gelfand who carried out extensive research into traditional Shona culture and medicine for long periods dating back to the 1950s¹³³. He had recognised the value of the local medical systems among the indigenous population. Through his work he was able to show that the IMK systems had significant value and could be harnessed to improve the knowledge of conventional science and medicine. This can be interpreted as an indication of the resilience of the IMK systems and it represents a measure of success of the efforts to resist the domination by the new systems. Finally there were some people within the new systems who appreciated the value of local knowledge systems. However the research carried out by these scientists had profound implications for the IMK systems particularly in the way in which it was held across communities and consequently it affected the mechanisms used to safeguard the knowledge¹³⁴.

¹³² Chavunduka supra

¹³³ Interviews with Dr Ndlovu, Mr Mavi and Professor Chavunduka. They had a chance to work with him on various projects in the past.

¹³⁴ The significance of research is dealt with in greater detail in a separate section below.

6.4 THE POST-COLONIAL PHASE – CONTINUITY AND SYMBOLIC CHANGE (1980 – PRESENT)

The post-independence phase saw some minor changes in the attitude of the state towards the IMK systems. When Zimbabwe gained independence in 1980, it represented triumph for the struggle towards political self-determination of the Indigenous Peoples who had been colonised for about ninety years. There was an expression of a desire to restore the traditional institutions. The government made expressions of favourable concern towards the traditional medical system¹³⁵.

In order to appreciate these changing attitudes it must be noted that during the liberation struggle the role of traditional leaders had also been significant. The spirit mediums and specialists aided the nationalist forces in the armed struggle for independence. A former liberation fighter, Mr Madimutsa, indicated how each time when they entered new and unfamiliar territory, they consulted the traditional leaders and IMPs for guidance and help¹³⁶. The new drive for liberation was seen as the continuation of the previous struggles in the First *Chimurenga* of 1896-98 that had been led by the traditional leaders *Mbuya Nehanda* and *Sekuru Kaguvi*¹³⁷. The new government was therefore keen to show its appreciation to the traditional leaders and institutions and attempt to give them the positions that they enjoyed during the pre-colonial days¹³⁸.

¹³⁵ Interview with Professor Chavunduka

¹³⁶ Interview with Mr Madimutsa in the Wedza communal area

¹³⁷ As indicated in Chapter 6 these two important people who had been influential in the First Chimurenga, the initial resistance against colonial rule, had been publicly executed to demonstrate the power of the new system. During the Second Chimurenga, they remained powerful spiritual influences.

¹³⁸ It can be noted that the new government has always tried to appease the traditional authorities whenever it seeks political favours. In the current political crisis there have been a number of overtures by the

The first step was to recognise the existence and valuable contribution of IMPs in the health system. In 1980, the new Minister of Health Dr Herbert Ushewokunze himself a Western trained medical doctor initiated the formation of a unified body of IMPs. On the 13th July 1980 the Zimbabwe National Traditional Healers Association (ZINATHA) was formed with the support of the state. There was considerable debate and interest on the new organisation that brought together the various divided organisations that purported to represent IMPs before independence. The formation of ZINATHA was significant because the unified body was a triumph of unity over divisions that existed among the IMPs during the colonial period. Its first leader was Gordon Chavunduka who was a professor at the University of Zimbabwe and had periodically carried out extensive research in the field of IMK and the work of IMPs since the late sixties¹³⁹.

Despite these positive changes there was intense opposition by most Western trained medical doctors who still believed that it was a primitive and backward system of knowledge. Therefore, regardless of the structural changes there remained greater ideological barriers that IMK had to surmount in the struggle for space. Professor Chavunduka, who championed the cause of IMPs and the IMK system within the mainstream academy at the University indicates that he was accused by his academic colleagues of soiling the image of the institution and he was branded as the “professor of

government meant to please traditionalists such as introducing salaries and many benefits for traditional chiefs and headmen. Critics argue that these are attempts to secure the majority rural voters.

¹³⁹ A trained sociologist Professor Chavunduka had worked extensively in the area of indigenous medicine and enjoyed the support and confidence of the IMPs. He also brought in the organisational expertise that had been lacking in the previous organisations. He has written extensively in this area and continues to represent the cause of the local medical systems. He later became the Vice Chancellor of the University of Zimbabwe. He was a principal source of information in this study.

witchcraft”¹⁴⁰. The public press also joined in the assault and in an article entitled *“Heading back to the Stone Age”* the author accused Chavunduka of,

“Persuading the people of Zimbabwe to denounce progress and all the scientific achievements represented by modern architecture ... all technology of the modern age and return to the Stone Age and its barbaric primitive beliefs” (Zimbabwe Sunday Mail, 27 June 1982).

It is quite clear from this statement that there was a lack of appreciation of the validity and legitimacy of IMK as a body of knowledge worthy of recognition. It was seen as a "Stone Age" knowledge system with all the elements of being primitive and archaic. Against that standard was the western medical system which was represented as if it had no blemish. In other words, everything science represented was progressive and beneficial against everything that the IMK system represented which was retrogressive and useless. That perspective holds that the latter were to be placed on the sidelines and forgotten.

In addition, the hostile attitude can be seen in the reaction to the efforts of the new Minister of Health who was trying to integrate the two medical systems by bringing the indigenous systems into the mainstream. A commentator issued a scathing attack saying,

“Dr Herbert Ushewokunze’s [Minister of Health] support of *n’angas* (IMPs) is a source of great surprise. Here is a man who took about seven consecutive years studying as a

¹⁴⁰ Speech by Professor Chavunduka at a workshop in Harare March 2002

doctor, after six years in high school and eight years of primary education. But he accepts as fully-fledged doctors people who have no medical training whatsoever.” (Zimbabwe Sunday Mail, 27 June 1982).

This criticism also shows how education was used as a tool for disempowering and sidelining IMK systems. Education had been meant to help the indigenous communities to overcome the burden of their archaic beliefs and knowledge systems. It also shows the limited view that is taken in the sense that anything that does not come through the western education systems does not meet the criteria of legitimacy and validity. Specifically, the implication of the statement is that any medical person who does not go through the western education system does not qualify to be a doctor. This is because in the scheme of things medical training is viewed largely from the Western perspective which privileges Western ideas about knowledge over the indigenous ones. It totally ignores the systems that exist in indigenous communities, which is an expression of the power that WSK enjoy over the alternatives. The struggle of IMK was thus a “challenge [of] the dominance of modern [western] medicine”¹⁴¹.

Regardless of the opposition, there was some support from members of the general public who continued to use the system despite its marginalisation before independence¹⁴².

Professor Chavunduka indicated that despite the bad publicity from the press, he received

¹⁴¹ Interview with Professor Chavunduka. He added, “The idea was not to say that western medicine is bad or that indigenous medicine is better. We fight for the recognition that indigenous medicine has value and we also accept western medicine. We are against people who ridicule the indigenous system and dismiss it yet in the dark of the night they come and pick up the medicine and develop it within their system. That is dishonesty”

¹⁴² Interview with workers at a factory in Harare

a lot of support from the public who wrote letters encouraging him to continue the work of promoting indigenous medicine and its practitioners. ZINATHA also became a more powerful and united voice.

The new government also saw it as a useful system that assisted in providing primary health care¹⁴³. The Traditional Midwives' status was raised given the important role they played in community health. The most significant official recognition came in 1981 when the government enacted the Traditional Medical Practitioners Act (No. 38/1981). It assisted the development of traditional medicine in Zimbabwe by recognising the ZINATHA as the legal association of traditional healers in the country. It also established the Traditional Medical Practitioners Council, which is empowered to oversee the registration and practice of indigenous medicine in Zimbabwe¹⁴⁴. In this way, law was now being used as an instrument of empowering the local systems.

This recognition and institutionalisation also increased transparency in the affairs of IMPs and more practitioners joined as confidence was brought into the system. The increase in confidence was vital for facilitating easier research into traditional medicines, as practitioners were more willing to discuss their practice and knowledge. Hitherto, they had deep distrust of the state and related institutions that despised its knowledge system and denied its legitimacy and validity. As will be clearer in the discussion on research into IMK systems below the state and practitioners initiated collaborative efforts towards research into indigenous medicine in 1985 when they held the first national collaborative

¹⁴³ Interview with Mr Mushita and Professor Gundidza in Harare

workshop. This workshop brought together practitioners from the traditional and modern medical knowledge systems and signalled the flowering of a relationship that was meant to bear fruits. At this point, it suffices to state that these efforts were temporary as they failed to bring in desired results. The lack of political will and commitment on the part of the state is largely to blame for the failure of these programmes that seemed to have much promise at the beginning.

IMPs are also unhappy that some laws that had been used by the colonial state to suppress their activities in the colonial era are still on the statute books¹⁴⁵. The failure to repeal laws such as the Witchcraft Suppression Act is seen by practitioners as a betrayal by the post-colonial government. This represents continued marginalisation by the state system. In addition while the modern medical practice continues to receive state support, there have been no similar efforts towards indigenous medicine. When the ZINATHA established the School of Traditional Medicine in the 1980s it was seen as an improvement on the part of the IMK system. The school was created to encourage the teaching of traditional medicine across the communities. It was an effort to spread IMK by widening the old apprenticeship programme. However it did not receive state support and by 2002 it had closed down because of lack of sufficient funding¹⁴⁶. This represents a major setback on the development of the IMK system in the country¹⁴⁷. The institutional changes were only done in piecemeal fashion and ZINATHA has described

¹⁴⁴ Although the law prescribes these rules, the reality on the ground is that due to lack of funding, the TMC is largely ineffectual.

¹⁴⁵ Interview with Sekuru Sibanda in Harare

¹⁴⁶ Interview with Mr Mavi who was heading the institution. See also “*No Cure for School of Traditional Medicine’s Financial Problems*” Article in The Daily News (Zimbabwe) 19/11 2002

¹⁴⁷ Mr Mavi and Sekuru Sibanda in Harare

Government's efforts as being merely "symbolic"¹⁴⁸. The rhetoric has not been translated into any tangible policies and structures to promote and enhance the status of IMK systems in the country.

6.4.1 The IP law Structure in Zimbabwe

Since Zimbabwe was a British colony, the legislation passed in the area of intellectual property rights over the years has been similar to the UK legislation. Historically, there is also Roman-Dutch law influence in the common law from South Africa. Legislation has traditionally covered all areas including trademarks, patents and copyright. At independence in 1980, the key legislation in this field was retained. However in the post-TRIPS era, there have been legislative changes to reflect the new international regime for the protection of intellectual property. Thus parliament has amended the Copyright Act by introducing the Copyright and Neighbouring Rights Act (26: 05) while introducing new laws on the protection of trademarks and patents as well. These changes are direct consequences of Zimbabwe's obligations under the World Trade Organisation to meet the minimum standards set under the Agreement on Trade Related Aspects of Intellectual Property rights (TRIPS). Of the new statutes, the Copyright and Neighbouring Rights Act specifically deals with aspects of indigenous knowledge since it provides for the protection of folklore. While this is restricted to areas of copyright, it is in part a reflection of the acceptance of the seriousness of the claims of the indigenous communities.

¹⁴⁸ Chavunduka, Unpublished Paper 2001

The institutional framework for the administration of intellectual property in Zimbabwe is fairly well established and advanced by Sub-Saharan standards. The Office of the Registrar of Patents and Trade Marks is responsible for the administration of the relevant IP rights in Zimbabwe while the Controller of Copyright, Registrar and examiners work at the Copyright Office to administer laws in that branch of IP law (Moyo 2001). The Magistrates court, the Intellectual Property Tribunal¹⁴⁹, the High Court and the Supreme Court are all responsible for the resolution of disputes that may arise in the administration and enforcement of IP rights in Zimbabwe. Thus structurally, Zimbabwean law largely conforms to the major requirements of the dominant IP law regime at the international level. Except in the new Copyright Act not much has been done however to protect the rights of Indigenous Peoples to their knowledge in medicines and related aspects. For that one has to leave the realm of IP law and enter the area of environmental law.

6.4.2 THE ENVIRONMENTAL LAWS AND POLICIES

The issue of knowledge of useful medicinal plants, which is at the centre of this study, is mainly covered by the new Environmental Management Act (20: 27) (hereafter the "the Act") which was passed by parliament in 2002. This legislation falls within the realm of environmental law rather than specifically for purposes of IP law. It follows a long period of negotiating since the Convention of Biological Diversity (CBD) was adopted in 1992. Although the Act was only passed in 2002 the first Bill had been presented to parliament in 1997 (Nhamo 2003). Its primary objective is to give effect to the resolutions and obligations accepted under the CBD. Under Zimbabwean law, it is necessary to enact

¹⁴⁹ Established under section 3 of the Intellectual Property Tribunal Act (26 : 08)

legislation in order to give force and effect to ratified international agreements¹⁵⁰. Essentially, the Act is aimed at promoting sustainable management of natural resources and the protection of the environment. It brings together a unified set of rules that had hitherto been fragmented¹⁵¹.

The Act provides for the establishment of the Environmental Management Agency (hereafter "the EMA") whose primary task is to formulate and oversee the implementation of environmental policies in the country. In terms of the S.11 of the EMA, the operations of the Agency are controlled and managed by an Environmental Management Board (EMB). This board consists of professionals appointed by the responsible minister. Section 7 of the Act also provides for the creation of the National Environment Council (NEC) which is also appointed by the responsible minister and oversees the work of the EMB and the Agency.

For the purposes of this study one of its key functions in terms of S.10 1 (b) (xv) is,

"To regulate and monitor access by any person to the biological and genetic resources of Zimbabwe"

The relevant portion of the EMA to give effect to this function is Part XIII. In Sections 116 and 117 this part deals with issues relating to the regulation of access to biological and genetic resources. In particular S.116 which deals with conservation of and access to

¹⁵⁰ Section 111 (b) (i) of the Constitution of Zimbabwe

biological diversity places an obligation on the responsible minister to take measures that may be necessary for such conservation and to fulfil Zimbabwe's obligations under the CBD. In order to achieve those objectives under S.116 the minister is given various options that he may take such as:

- i. identify the components of the biological diversity of Zimbabwe;
- ii. determine the components of biological diversity which are threatened with extinction;
- iii. prepare and maintain an inventory of the biological diversity of Zimbabwe;
- iv. determine actual and potential threats to the biological diversity and devise such measures as are necessary for preventing, removing or mitigating the effect of those threats;
- v. protect the indigenous property rights of local communities in respect of biological diversity;
- vi. support the integration of traditional knowledge on conservation of biological diversity with scientific knowledge;
- vii. prohibit or restrict access by any person to or the exportation of any component of the biological diversity of Zimbabwe.

The minister is also empowered to establish germplasm banks, botanical gardens, zoos, animal sanctuaries for conservation purposes. Section 117 empowers the minister to create regulations for the control of access to the biological and genetic resources of

¹⁵¹ Examples of previous legislation dealing separately with environmental issues include the Natural Resources Act, Noxious Weeds Act, Forestry Act, Seeds Act, Hazardous Substances and Articles Act, etc.

Zimbabwe by any person. The regulations may prohibit the exportation or importation of germplasm unless it is subject to the conditions of a licence issued by the minister. They may also provide for the equitable sharing of benefits arising from the technological exploitation of germplasm originating from Zimbabwe.

Undoubtedly, the Act provides a solid platform for the development of the institutional, legal and policy framework that is necessary for developing a sustainable environmental protection system. The Act correctly identifies the problems arising from the use of biological and genetic resources and attempts to provide the platform upon which measures can be built for purposes of solving the problems. The legislature accepted the claims that indigenous knowledge is an important tool in the protection of the environment. Its commitment to meet its international obligations is confirmed by the enactment of this Act. Nonetheless there are some weaknesses as far as the key area of this study is concerned.

Firstly, while it attempts to give effect to the requirements of Article 8 (j) of the CBD in respect of protecting bio-diversity and providing for benefit sharing, the institutional framework does nothing specific to include the indigenous communities in policy formulation and implementation. Indeed all three key institutions set up in terms of the Act, that is, the EMA, EMB and NEC consist of various specifically named professionals but key stakeholders in the area of indigenous knowledge are not specifically included in any of them. Only paragraph (e) of section 7 provides for representatives of NGOs who may be appointed by the minister but even this section does not direct the minister to

appoint a member of the groups representing key stakeholders in the community. Therefore, while the Act complies with the CBD in affirming national sovereignty, it fails to recognise and promote autonomy of local indigenous communities and their participation in the system remains in the margins.

Secondly, the creation of three bodies namely the EMA, EMB and NEC under the Act in addition to the Ministerial involvement creates a long chain of command which is likely to lead to further bureaucracy and consequent delays. The local communities will be alienated even further by a system that is unnecessarily heavy at the top. It is the structures at the grassroots level that are more vital than the Act's emphasis on the bureaucratic bodies. The views of the local people might take very long to filter to the top under such a system and coupled with their exclusion from the bodies, the concept of participatory involvement is unlikely to be fulfilled under this framework.

Another weakness is that the Act fails to define the meaning of "benefit sharing" arising from the yields from the use of knowledge and biological materials is concerned. The precise practical meaning of this term has always been problematic even at the international level since the CBD, but it was expected that individual countries would formulate policies that reflect their own circumstances. However, by failing to give operational content to this term, the Act simply restates the generalised understanding of the CBD.

The biggest limitation however, is that in Section 117 (2) (e) the Act gives power to the Minister to make regulations in respect of sharing benefits "arising from the technological exploitation of germplasm originating from Zimbabwe between the *owner of the technology and the government*" (my emphasis). This places the government as the primary beneficiary and excludes the local indigenous communities as autonomous parties for purposes of benefit sharing. The regulations ought to be clear on the position of the local communities. At present the problem will simply remain between the government and the local communities. While the CBD recognises national sovereignty over biological diversity, it provides for state parties to make provisions for the allocation of benefits to local communities. By taking the primary benefits under the laws the state is simply continuing with the historical marginalisation of the local communities. It will still be necessary under regulations, to give meaningful content to the concept of "benefit sharing" to enable it to be of practical significance to the local indigenous communities.

While the Act makes provision for the preparation of inventories and establishment of germplasm banks following the examples set by countries such as India, reports over the recent years indicate that this has already been taking place. Indeed, Zimbabwe has a number of nature reserves across the country while the National Botanical Gardens and Ewanrigg Gardens in and close to Harare have been used for the conservation of rare species over the years. The Department of Research and Specialist Services (DRSS) has also established a genebank for purposes of preserving plant species threatened with

extinction and biological piracy¹⁵². However, despite the statement of the law and the rhetoric, the involvement of the local indigenous communities is hardly given adequate space. It appears that with the help of the state's institutional structures, the researchers and professionals are continuing with old policies that sideline the local communities. The protection of the local indigenous communities rights to their knowledge and resources cannot be effectively satisfied by placing everything in the hands of the state and its institutions while excluding them from the legal framework.

The law in Zimbabwe is still quite inadequate as far as the protection of indigenous knowledge and biological resources is concerned. Although it makes vague references to "indigenous property rights" there is no effort to identify what those systems are and whether using the term "property rights" is the most appropriate one to describe the local systems. The Act ought to define these key concepts so as to avoid confusion over meanings and scope when rights are being enforced. The present state of vague statements does not augur well with the need to create a more effective and workable system. The Act is a useful step in the right direction but it needs to provide for greater participation of the local indigenous communities at all levels so as to be more effective in achieving the goals. The state does not always meet the interests of local communities and bureaucracy might push them out further. Simply restating the general principles adopted at the CBD in 1992 will not be enough. In any event, there is a specific need to address the issue of rights to knowledge in relation to the more dominant patent system. The Act is more concerned with physical biological and genetic materials but it is

¹⁵² "Research Department launches genebank" Report in The Daily News 5 May 2001 It was stated that "The Genebank of Zimbabwe would be responsible for promoting conservation and sustainable utilisation

necessary to deal specifically with issues in connection with knowledge itself. That could be a separate matter but there is no reason why it cannot be connected with the issue of physical materials to create more synergies in the system of regulation.

In conclusion, while the post-colonial state showed initial signs of interest, they have paled over the course of time. The IMK system remains in the margins although both indigenous and non-indigenous people continue to use it. It remains an integral part of the primary health care system because the majority of the population uses it. Most of the transactions take place beyond the official zone. The discrimination it suffered during the colonial era remains in place and it has not been fully integrated in the national system. The fundamental question is why despite the initial indications of support the situation of IMK systems has not changed much at the official levels. It is arguable that the new government has retained the same mentality as the colonial governments due to lack of will to appreciate the value of the system in full. The initial expressions of assistance were merely symbolic and have failed to fully integrate indigenous medical systems into the mainstream and take necessary steps for its protection.

6.5 RESEARCH INTO THE IMK SYSTEM: IMPACT AND CONSEQUENCES

Traditionally research is the avenue through which knowledge is developed and expanded. Researchers investigate phenomena and the information and products that they acquire add to the store of knowledge that is already available. Arguably, this takes place in all systems of knowledge. Historically, despite the general dismissal of IMK systems,

of plant genetic material for food and agriculture" According to the Head of the Genebank

there has been interest from the WSK systems in trying to extract and incorporate the elements that enhance them. The research into IMK systems is consistent with the "Struggle Thesis" position that the dominant knowledge system usually attempts to know and extract from the subordinated system by selecting elements that extend its domain and power. This demonstrates that despite the apparent conflicts between IMK and WSK systems there have been instances where efforts towards collaboration have been pursued. Research is the point at which the knowledge systems make contact and interact. The problems arise where the dominant system is credited with the findings and the other knowledge systems are ignored.

A prominent early example in Southern Africa is the effort by Dr Fitzgerald in *Xhosaland* in the 18th century (Gordon 2002). He recognised the significance of knowledge held by local Xhosa healers. He was convinced that they could diagnose illness and possessed vast knowledge of medicinal substances derived from natural products such as plants and animals. However his efforts were hampered by the colonial state which sought to manipulate western medicine in its colonial project. It wanted to use the power of western medicine as an ally for imposing its authority over the Indigenous Peoples. An attempt to promote legalisation of indigenous medical practice by the likes of Dr Fitzgerald was thwarted despite his foresight regarding its potential for the enhancement of scientific knowledge and medical practice. This indicates that interests in the indigenous forms of medical knowledge have a long history that predates the current problems associated with the interaction between the knowledge systems.

Professor Michael Gelfand is the most notable researcher from the western scientific community who conducted considerable research in colonial Zimbabwe¹⁵³. He was interested in the workings of the traditional systems and believed that the system worked for the people that used it (Gelfand 1983). He was keen to know how the system worked. He therefore carried out sustained research into IMK system and has produced publications on the traditional life of the indigenous *Shona* people, their culture and medical systems. His team of researchers was keen to know the indigenous communities' views on the cause and treatment of disease among the *Shona* people. Gelfand and his teams learnt and published accounts on the diagnostic and treatment methods and how they differ from the Western systems¹⁵⁴.

The most comprehensive research is published in Gelfand's text entitled *The Traditional Medical Practitioner in Zimbabwe* (1983). It is a detailed account on the work of the IMP and the treatment methods and medicinal plants used in Zimbabwe. It was the outcome of a comprehensive research process that had begun in the early 1970s. The Department of Medicine at the University of Rhodesia (now University of Zimbabwe) launched the research in conjunction with the National Herbarium and the National Botanical Gardens in Harare. They decided to do the research out of concern that the delay in recording the information would lead to further loss (Gelfand 1983). They felt that due to the fact that the traditional systems and lifestyles were being sidelined by the modern lifestyles it might lead to the loss of valuable medical knowledge. Also population increase in limited

Claid Mujaju. "The Genebank is the pivot for identification and documentation of plant species resources (sic). It collects, characterises, evaluates, stores, regenerates, multiplies and distributes plant genetic resources accessions of indigenous or exotic origin important for food and agriculture."¹⁵³ Interviews with Professor Chavunduka and Professor Gundidza

communal areas was putting pressure on the resources and it was felt that this might lead to the loss of the medicinal plants and consequently the IMK that informs indigenous medicine. In addition, the herbalists were also keen to share their knowledge in order to demonstrate its validity. Arguably, they saw this as an opportunity to get the recognition that they had been fighting for.

Prior to this effort there had been collections of medicinal plants in the *Chinamhora* and *Murehwa* districts of Zimbabwe in 1956 by Gelfand and Wild¹⁵⁵. The National Herbarium in conjunction with the National Botanical Gardens was also carrying out parallel research of its own and IMPs were urged to bring in medicinal plants for identification and compilation. During the research the researcher was shown indigenous plants that have been planted in the National Botanical Gardens for purposes of preserving them from extinction. Notably, the IMPs were paid a small fee and travelling expenses for their effort¹⁵⁶. Thus generally, there was an effort to learn more about traditional medicines and to record the uses of medicinal plants. The book sets out in detail the work of the IMP in Zimbabwe. It also tabulates and profiles in detail the indigenous and scientific names of medicinal plants, their uses and distribution around the country. These can be viewed as the initial efforts to record IMK opening up avenues for appreciation of the value of IMK but simultaneously it would inform future scientific research to extend the domain of the WSK systems. It is a useful guide to any researcher intending to access the IMK and biological resources in Zimbabwe.

¹⁵⁴ Interview with Professor Chavunduka

¹⁵⁵ Interview with Dr Ndlovu, Professor Benhura

It also sets out that some herbal remedies used in Zimbabwe are also used in other African countries for similar or different ailments. They found that the flora of Zimbabwe consists of more than 5000 species of flowering plants and ferns and about 500 were known to have medicinal properties. The researchers suggest that a more comprehensive study in all areas could uncover more plants of medicinal value. Thus 234 of the 500 medicinal plants found by the researchers were also used for medicinal purposes in Central, East and West Africa. 60 of the plants were used for the same complaints and other purposes while 168 were used for completely different purposes. This shows that one plant can have different uses in the same places and in other places. Gelfand, et al state that they, “are hopeful that a number of the medicinal plants employed by *n’anga* (IMP) will prove to be of help to man” (1983: 76). They concluded that “There is a need for chemical and pharmacological research into the plants which are widely recommended by *n’anga* (IMP) to determine their medical value...” (1983: 242). They noted however that this process could be expensive and requires a larger base of skills.

Another text that has been recently published which discusses the use of medicinal plants in Zimbabwe and most of Africa is entitled *Chemistry, Biological and Pharmacological Properties of African Medicinal Plants* (1996). The book represents a compilation of different aspects and results of research on the pharmacological properties of African medicinal plants. It was published in 1996 and is edited by Professor Hostettman et al. It is notable that Professor Hostettmann is the same individual at the centre of the dispute between the Zimbabwe and the University of Lausanne, Switzerland over the patenting of

¹⁵⁶ Interviews with Professor Chavunduka, Sekuru Sibanda and Sekuru Jambaya

a drug derived from a Zimbabwean medicinal plant¹⁵⁷. This text shows that there is much research into indigenous medicines that is already going on as a matter of fact. The publications of results encroach into the secrecy arrangements dominant in the indigenous communities and the efficacy of indigenous protection systems will have to be measured against these realities. Contrary to the past or idealised situations crucial and significant parts of the IMK system are no longer in the exclusive domain of the Indigenous Peoples and any strategies for protection will have to acknowledge that reality.

In addition the Pharmacy Department at the University of Zimbabwe has for many years been carrying out research into the indigenous medicinal plants used by IMPs in their practice¹⁵⁸. The IMPs make contributions to the research by providing the plant and animal samples with medicinal properties. It was revealed that out of about 700 plant samples so far 95 have proved to be effective for medicinal purposes. Some cures for ailments such as coughs, sores, diarrhoea, herpes and other venereal diseases have been identified in the experiments. Research is taking place on the drug PMZ that is believed to help in the treatment of some AIDS symptoms and can help patients to have higher life expectancy. The researcher was also shown a drug called *Gundamiti* that is being developed by ZINATHA in conjunction with the scientists at the UZ¹⁵⁹.

Archival searches in the medical library also showed that many Zimbabwean pharmacy students are taking an interest in the local medicines. Several projects have been

¹⁵⁷ See Case Study of biological and knowledge piracy in Zimbabwe in Chapter 8

¹⁵⁸ Interview with Professor Gundidza and Professor Benhura

undertaken in the last twenty years that deal with the research into indigenous medical remedies and their potential for further development on a wider scale. It is now recognised that traditional medicine plays a significant role in the primary health care system in many developing countries. Its potential to augment the dominant modern medical system and the development of drugs is now well acknowledged. The following table illustrates the trend that has developed over the last twenty years. The research primarily focused on the indigenous medicines supplied by the local people and the biological resources used were collected from the local communities around the country.

TABLE 2 Published Research Projects into IMK systems Between 1980 and 2000

1982	Mogg V and Gundidza M: Preliminary screening of medicinal plants of Zimbabwe for antimicrobial activity
1985	Ismail S and Morton D: Computerisation of traditional medicine used in Zimbabwe
1986	Magwenzi M, Gundidza M and Fiagbe N: Preparations of soaps from local plants
1990	Gambiza A and Gundidza M: Antimicrobial activity of <i>Hoslundia opposita</i> and <i>Pappea capensis</i> (traditional plants)
1990	Makuzva R and Gundidza M: Antimicrobial screening in <i>Bidens pilosa</i> and <i>Jatropha curcus</i> (traditional plants)
1990	Manyonga E and Gundidza M: The potential for the

¹⁵⁹ Interviews with Dr Ndlovu and Sekuru Sibanda at ZINATHA.

	establishment of an essential oils industry in Zimbabwe
1995	Dhliwayo E and Nhachi C: Evaluation of the anti-diabetic effects of an <i>Opuntia megacantha</i> extract (used to treat diabetic symptoms in traditional medicine) (1995)
1995	Hlahla L and Ball D: Use of herbal remedies in Zimbabwe: the role of the community pharmacist
1995	Katerere D and Parry O: Pharmacological and phytochemical screening of <i>Heteromorpha trifoliata</i>
1996	Chikonzo P and Nhachi C: Antidiabetic and mechanism of action of <i>Opuntia megacantha</i> (traditional treatment of diabetes)
1996	Chawatama B and Chagonda L: The antimicrobial screening of some domesticated Zimbabwean essential oils (1996)
1997	Chiyangwa K and Chagonda L: Formulation of dermatological creams using some indigenous medicinal and aromatic plants from Zimbabwe
1997	Maluleke J and Gundidza M: The formulation of a lotion for dry skin using natural ingredients and evaluation of its biological and physical properties
1998	Dhliwayo F and Gundidza M: Antioxidant activities of some plant extracts
1998	Kaurirai D and Gundidza M: Insect repellent properties of the plants <i>Clausina anisata</i> and <i>Lippia javanica</i>
1998	Dube S and Gundidza M: Antimicrobial activity of Aloe

	excelsa extracts
1999	Maisiri M and Gundidza M: The effects of crude extracts of <i>Kigelia africana</i> and <i>Aloe excelsa</i> on deep wound healing
1999	Chadya M and Gundidza M: Extraction, quantification, structure elucidation and biological activities of selected essential oils from Zimbabwe
1999	Gwesela D and Gundidza M: In search of plants with antioxidant activity
1999	Kunaka T and Chinyanganya F: People and Healers Part I: Faith Healers

This table shows samples of the research that is being carried out into the indigenous medical sector. Interestingly the acknowledged authors of the projects are the students and supervisors and although a few of them mention that they collected plant samples from specific areas all are silent on the contributions of the people that supplied the knowledge about the plants with medicinal properties. Those are the types of practices that cause problems in the relationship between the local people and researchers and consequently have implications on the relationship between knowledge systems. This kind of research also has the implication that more information from the IMK system is being brought into the public domain and has become easily accessible to researchers who can rely on the data as secondary sources without necessarily having to rely on the IMPs or the communities.

As indicated earlier in this chapter in the aftermath of independence the new government showed favourable interest in traditional institutions. The government began to recognise traditional medical practice by enacting legislation and promoted the establishment of the umbrella body for local IMPs. At the same time efforts were made to promote research into IMK system. In 1985 a national workshop to promote collaboration between western science and indigenous knowledge was held in Harare¹⁶⁰. IMPs attended a series of workshops with scientists trained in western science as well as government policy makers. The IMPs were pleased that for the first time they were being taken seriously at the official level and were keen to be involved and show their worth and value of their medical system. Their struggle has always been to demonstrate the value and legitimacy of their knowledge system. In their attempts to demonstrate this, the Indigenous Peoples have exposed their knowledge systems to the WSK system in the event opening up avenues for further extraction. Those are some of the pitfalls of the struggle. A set of resolutions was made at the 1985 workshop. The following were some of the pertinent the resolutions:

- i. Establishment of sound dialogue between traditional and conventional practitioners;
- ii. Compilation of traditional medical pharmacopoeia with the first edition to be published by the end of 1986;
- iii. Government to establish a scientific research institute on traditional medicine;
- iv. Cultivation/Propagation of traditional medicines of proven therapeutic value;

¹⁶⁰ Interviews with Professor Chavunduka and Professor Gundidza

- v. Establishment of a pharmaceutical processing plant to manufacture pharmaceuticals from traditional medicines by 1990;
- vi. Government to protect the rights of traditional healers whose medicines are to be utilised after mass production
- vii. Stringent penalties to be enforced against any person found to be trafficking indigenous medicine outside the country;
- viii. Traditional medicine to be taught in the medical school¹⁶¹. (Chavunduka 1994)

However, by 1994 the resolutions had not been implemented. In fact, to date nothing has been done to ensure the implementation of these resolutions. The reasons that have been given for the failure include:

- i. lack of manpower to carry out the research;
- ii. lack of funds and motivation among the scientists and the State;
- iii. lack of sufficient and sustained dialogue between IMPs and scientists and
- iv. Failure of the mainstream academy to accept IMK systems. The University of Zimbabwe rejected an attempt to introduce the teaching of aspects of traditional medicine in the curriculum of medical studies (Chavunduka: 1994: 20).

The resolutions can be interpreted as an attempt to bridge the gap between indigenous and western knowledge systems that had been created over the years during the colonial era. They were attempts to resolve the struggles between knowledge systems as articulated in the Struggle Thesis. Nonetheless the failure to implement the resolutions is

also an indication of the difficulties faced in bridging this gap. More importantly however the resolutions show that there is potential for resolving those conflicts. One vital finding is that IMPs are not averse to sharing their knowledge. The IMPs are not necessarily opposed to further research into their knowledge. In fact supplying information in return for value has always been accepted in the traditional systems. The opposition has more to do with the manner in which the research is done and the way in which the Indigenous Peoples are marginalised in the process¹⁶².

As the resolutions illustrate there was always a desire to seek protection of their knowledge from exploitation. These observations are significant because they show that there is room for collaboration and that it is the *modus operandi* of the research that is the contentious aspect rather than the principle itself. Indeed the president of the ZINATHA stated that,

“... ZINATHA encourages research into traditional medicine ... [it] invited scientists from the University of Zimbabwe and other research organisations to undertake research in consultation with traditional healers” (Chavunduka, 1994: 31)¹⁶³.

Indeed despite the failure of the state to promote research as had been promised earlier, there have been collaborations between IMPs and individual scientists at the University

¹⁶¹ Also echoed by Professor Gundidza and Dr Mashava in interviews.

¹⁶² The Case study in Chapter 8 will demonstrate this continuing marginalisation.

¹⁶³ Also stated in an interview with Professor Chavunduka, Sekuru Jambaya

of Zimbabwe¹⁶⁴. Interviews with scientists at the university showed that they are actively engaged in collaborative research with local IMPs¹⁶⁵. The IMPs bring in their medicinal remedies for further laboratory research and analysis. A visit to Professor Gundidza's office revealed vast collections of traditional plants and interviews with the IMPs involved indicated that there is collaboration. Indeed during the interviews the researcher observed that some IMPs were waiting to see the scientists to provide plant and herbal materials for research. The researchers indicated that they now acknowledge the contribution of IMPs. When they publish papers, they acknowledge the contribution and the patents that they apply for indicate the identity of the IMP as a co-applicant¹⁶⁶.

These results show that there is clearly some collaborative research that is taking place beyond the official circles. Some of the local scientists get funding from foreign organisations such as the US National Cancer Institute. According to Professor Gundidza, this is because the state does not give them support and they have to rely on foreign organisations with which they sign private contracts. They sometimes go to the foreign universities and research institutes for months to do research because the facilities are better than what is available in the country. The lack of state support is hampering the local research efforts.

¹⁶⁴ The lack of state support has led to the collapse of the School of Traditional Medicine initiated by ZINATHA to promote traditional medicine after independence. As Professor Chavunduka stated, "The school was being funded by ZINATHA all the while without government support or participation. This is despite widespread knowledge that traditional herbs now supplement mainstream medicine. It has really been hard for us" Quoted in the article "No Cure for School of Traditional Medicine's Financial Problems" in The Daily News 19/11/2002

¹⁶⁵ Interviews with Professor Gundidza and Dr Mashava

¹⁶⁶ Interview with Dr Mashava

An important point is that there is no coercion as IMPs collaborate voluntarily with the scientists. The problem is that this system of exchange relies on private contracts that have no set standards and rules on the transactions and relationships between IMPs and scientists or organisations. The involvement of foreign organisations presents problems because their influence is fundamental as they have the financial and technological resources. They have bigger bargaining power, which might impact on the contractual negotiations in their favour. The position of the IMP is not adequately protected as they are participating in a system with which they are unfamiliar and their voice is weak. There is no legal framework to regulate the process and the state does not seem to appreciate the valuable assets that are involved in this research and trade. It is therefore necessary that any proposals for change do take into account the reality of the research that is going on and the fact that there have been publications of many medicinal plants used in the practice of IMK.

6.6 CONCLUSION

The overall effect of research into indigenous medicines is that it has changed the traditional ways in which IMK is held across communities. While the indigenous peoples still show a demarcation between the holders of specialised medical knowledge and the generalised medical knowledge the reality is that research has actually exposed the knowledge to the wider world through publications and information dissemination. This development is very significant because it has implications on the mechanisms that can be used to protect the rights of the original providers of IMK for purposes of research. As

argued, it is not the idea of research that is necessarily opposed but the process by which research is accomplished. The target for resolving the struggles are the ways in which the research process is structured and not necessarily to ban research per se.

In a nutshell certain points are worth noting:

- i. Research into indigenous medicines using IMK has been taking place for a long time and there have been publications and compilations of medicinal plants and their uses thereby placing some IMK beyond the exclusive control of the communities
- ii. IMPs are not necessarily opposed to sharing their knowledge with others. Indeed they have shown a keenness to do so sometimes in an effort to prove the validity and legitimacy of their knowledge system¹⁶⁷
- iii. The local researchers have to rely on foreign organisations and funding because the state does not support their efforts
- iv. There is insufficient financial support or legal framework to regulate the use, transfer and trade of medicinal knowledge and plants in the country. The present system continues to marginalise the key stakeholders in the indigenous communities.

¹⁶⁷ In fact, according to Mushita of Community Technology Development Trust in Zimbabwe, "Biopiracy undermines legitimate and important scientific research as well as conservation and sustainable use of biodiversity by depriving all interested parties of the opportunity to negotiate equitable and efficient benefit-sharing agreements." Quoted in The Daily News 5 May 2001 (Copy on file)

The historical exploration of the treatment of the IMK systems has demonstrated that while the state assisted the WSK system it undermined the position of the IMK system. Consequently the need for its protection was not recognised. Research into the system showed that while it was not recognised, it was still a system to be known, extracted and incorporated whenever it enhances the WSK system. The Indigenous Peoples wanted to prove that their knowledge was effective and legitimate and they got involved in the research. This research has however undermined the local mechanisms for knowledge protection. It has fundamentally changed the way in which knowledge is held and accessed in the communities. The struggle has caused the opening up of spaces for IMK systems but it has also opened up lines through which extraction of IMK systems can take place. The challenge is not to ban research but to ensure that this process which links up the knowledge systems is adequately regulated so that it produces results that benefit all concerned stakeholders.

CHAPTER 7

INTELLECTUAL PROPERTY LAW AND INDIGENOUS KNOWLEDGE SYSTEMS

7.1 INTRODUCTION

The object of this chapter is to assess the applicability of the IP law system as a protection mechanism for the IKS. As indicated in Chapter 1, this study focuses more closely on the patent system and the IMK systems. Therefore, although this discussion will consider general aspects of IP law and IKS, it will largely make specific references to patent law and IMK systems. This assessment is part of the legalistic approach, which has been the common way to dealing with the issue of the protection of IKS among most legal scholars (Weidlich 2003). The chapter reviews this debate and examines the strengths and weaknesses of this legalistic approach as a solution to the problems of IKS. It concludes that this approach is limited and therefore lays down platform for the consideration of the alternative approach that is broader in that it includes comprehensive assessments of cultural, anthropological and environmental aspects of IKS¹⁶⁸.

At present, IP law represents the dominant legal mechanism for knowledge protection at both national and global levels and generally most assessments have been undertaken against the background of this mechanism. As this study challenges this dominance of IP law it is necessary to place its globalisation within the global context. The question of

whether technically and operationally IP law can be used to protect indigenous knowledge will be discussed in the second part.

7.2 TRIPS AND THE GLOBALISATION OF IP LAW

7.2.1 TRIPS AND THE DOMINANCE OF IP LAW

In 1994, the TRIPS agreement was one of the agreements that were concluded at the end of the Uruguay Round of trade talks that ushered the World Trading Organisation (WTO) on to the global stage. The WTO succeeded the General Agreement on Trade and Tariffs (GATT) as the dominant force in regulating the global trading regime. The WTO is remarkable for the wide and comprehensive coverage of issues that had hitherto been peripheral to global trade regulation. These areas include the trade- related aspects in connection with intellectual property rights (IPRs). The TRIPS agreement essentially sets the minimum standards for intellectual property protection and represents a major turning point of the protection of knowledge at the global level by attempting to globalise Western-style IPR systems. As Drahos and Braithwaite (2002) point out, TRIPS is probably the most important international agreement for intellectual property protection in the 20th century.

According to Fecteau, TRIPS generally succeeded in globalising Western IP law systems (2001). Prior to the TRIPS agreement, major developments in the international protection of knowledge by IP law had been witnessed mostly in the late 19th century. The first

¹⁶⁸ The critical aspects of this alternative approach advocated in this study are covered in chapters 9 and 10.

major international development was marked by the adoption of the Paris Convention for the Protection of Industrial Property (1883) (hereafter the "Paris Convention") aimed at the protection of industrial property. The second major development was the Berne Convention for the Protection of Literary and Artistic Works (1886) (hereafter "the Berne Convention") for copyright protection. At inception, mainly industrialising Western European countries adopted the two Conventions. Darian-Smith (2002) notes that the conventions between the European nations can be seen also as adopting IP law as a symbol of western modernity and values representing civilisation, equity and justice. IP law safeguarded not only individuals' rights but also the technological resources of a nation. Those two conventions also indicated the growing international importance of knowledge development and protection and the need for international co-operation among nations.

Even though more countries adopted the conventions over the years they were limited in scope both in geographic and substantive terms in respect of enforcement of uniform standards (Ryan 1998). As Endeshaw (1996) argues, they did not create a tightly integrated system of conformity among all nations. In 1966 the United Nations (UN) created the World Intellectual Property Organisation (WIPO) as a specialised agency for purposes of promoting IP law standards throughout its member nations. As will be explained below, by comparison with earlier developments, TRIPS is more extensive in its physical and substantive coverage of issues. Indeed, being part of the WTO trading regime gives it greater binding power as its adoption is mandatory by member states¹⁶⁹. TRIPS combines the different areas of IP into a single document and adds other areas like

trade secrets that were not previously covered by the international agreements (Blakeney 1996).

Scholars have identified three phases of the development of IP law as a regulatory mechanism (Drahos & Braithwaite 2002; Adewapo 2002 and Gervais 2002). Firstly, there was the territorial stage ranging from the early centuries to the 18th century. During that period IP law was on territorial basis with each country enacting laws that suited its position and laws were different from one state to another. Thus in 1474 there was a patent system in Venice, in 1623 the Statute of Monopolies was enacted in England and later one of the first modern IP statutes, the Statute of Anne was put in place to protect copyright. In the late 18th century, the US Constitution formally recognised the need to protect literary and scientific creations (Drahos 1999). The international period followed with the advent of the international agreements such as the Paris Convention and the Berne Convention in the late 19th century.

This period signalled the advent of the industrial revolution and major developments in the publishing community. It also showed greater trends in international commerce and states needed to co-operate to protect IP rights. This long period was characterised by various amendments to the agreements. With the opening up of world markets in the post-Second World War era and the growth of GATT from 1948, international commerce grew and the need for co-operation also increased. As knowledge based industries took a central position in the economies of most developed nations, they pushed for increased co-operation in the area of IPR protection. And so it was that with the beginning of the

¹⁶⁹ This subject to provisions allowing different periods for the Least Developed Countries (LDCs).

GATT talks Uruguay Round in 1986, the USA led the drive towards the globalisation of IP law protection norms.

The TRIPS Agreement has also proved to be one of the most controversial parts of the WTO agreement¹⁷⁰. The debates over its substantive terms and purpose have reflected battles between the mainly Western industrial states that generally support TRIPS and the developing countries that consider it to be a barrier to development and basic needs of their people¹⁷¹. This study argues that these battles are a wider reflection of the deeper problems over the control of knowledge as a centre of power. While TRIPS represents the global extension of Western-style laws for knowledge protection, it also indicates the continued dominance of the dominant WKS and the persistent marginalisation of IKS. The non-involvement of other interested groups in the negotiation of TRIPS led to an agreement that caters only for a section of the international community. The disputes at Seattle and Cancun reflect the re-emergence of those sections such as Indigenous Peoples Groups into the decision-making process and their desire to be heard for purposes of creating norms for knowledge protection among other things.

Significantly, TRIPS illustrates the problems arising from the dominance of certain legal norms with important implications for other knowledge systems such as indigenous knowledge. According to Sell, TRIPS fundamentally changed the international IP law

¹⁷⁰ The chaotic scenes at the beginning of the Seattle Round of Trade Negotiations in Seattle in 1999 marked the escalating disputes over the agreements that had been concluded at the end of the Uruguay Round. In Cancun in 2002, the negotiations broke down as a result of these differences and TRIPS has been at the centre of the problems.

¹⁷¹ Scholars have noted similarities in the USA's attitude in the late 19th century when it refused to be party to the conventions on the basis that as a developing country at that time, it needed to utilise all available resources and not to be fettered by international IP laws (Stenton 2004).

regime by dramatically extending western-style property rights globally and caused a reduction in the policy-making autonomy of nations in respect IP laws. For example before TRIPS, countries could freely adopt IP laws to suit their socio-economic conditions (Kongolo 2000). Thus in countries such as India, patents in pharmaceuticals were restricted to processes. These controls were meant to expand the local industry producing generic drugs and reduce prices to make them accessible to their largely impoverished communities. In this case the users were considered the primary beneficiaries of medical advancement. It was acknowledged that patents on medicines encourage monopolies and therefore allows companies to create a captive market, which can be exploited particularly where people have limited means. The policy of countries like India was to ensure that the people came first before the commercial interests of patentees. In the post-TRIPS period India has had to revise its laws to comply with the new international regime. In the eyes of pharmaceutical companies, India had become one of the prime culprits in the violation of IPRs.

The recent case involving South Africa and pharmaceutical companies also illustrates the potential diminution in the sovereign autonomy regarding policy making in the area of medicine as a consequence of the standards ushered through TRIPS. South Africa enacted legislation in 1999 principally to permit the manufacture of generic drugs as part of the strategy to combat the AIDS pandemic (Sell 2002). The idea was to improve the availability of cheaper drugs so as to improve access to medicines for the people. This development alarmed the pharmaceutical giants that had worked so hard for the adoption of TRIPS. Therefore, they staunchly opposed the new law and proceeded to take legal

action against the SA government to invalidate the legislation. Although an out of court agreement finally settled the matter that law-suit demonstrated the challenges to sovereign autonomy that the TRIPS regime has presented to many states especially in the developing world.

Also by promoting IP law TRIPS endorses the dominance of western-style knowledge systems at the expense of indigenous systems of knowledge, which it does not adequately cater for. Ultimately, TRIPS appears to be a commercially-driven code which establishes the dominance of commercial interests and subordinates ethical and other social considerations pertaining to knowledge protection. It perpetuates the fallacy that people innovate only for profit whereas as experience has shown Indigenous Peoples have been innovating for many years on the basis of survival needs (Weidlich 2003). The lack of private economic incentives has not stopped people from innovating in indigenous communities. As Tuhiwai-Smith echoes, as Indigenous Peoples they had to innovate and extract the secrets of nature in order to survive. Arguably, TRIPS enhances the protection of the commercial benefits accruing to owners of IP rights.

The inadequate legal regime of IP law encourages bias against knowledge systems that do not fit the prescribed confines. It represents a denial of the intellectual contributions of indigenous communities through their IKS. As Shiva points out, the horizontal ordering of plural knowledge systems is converted into a vertical hierarchical structure in which the epistemological foundations of one system are imposed on others in order to invalidate their value and legitimacy (2000). As already alluded in this study, it places

WKS in a position of superiority over the IKS that are considered to be inferior and unscientific. This hierarchical structure of knowledge is perpetuated by the legal regimes that give priority to the WKS over the intellectual contributions of indigenous communities. The dominant system recognises property based on capital investment and commercial returns whereas in fact the subordinated systems of knowledge protection in indigenous communities base their ownership and control of knowledge on other grounds such as culture, moral value, etc. The dominance of the IP law system therefore places commercial considerations at the fore and fails to recognise alternative grounds upon which other people make claims to knowledge protection (Weidlich 2003). Instead of recognising difference and plurality, TRIPS appears to perpetuate the bias against IKS while putting forth strong minimum standards of IP law that protects Western-style knowledge systems. It facilitates the globalisation of a legal regime that reflects the dominance of WKS and economic interests of Western states and denies the validity and legitimacy of IKS and leaves Indigenous Peoples in the margins.

7.2.2 CORPORATE POWER AND THE NEGOTIATION OF TRIPS

The negotiating history of TRIPS also illustrates the strong connection between structural power and knowledge. There is a rich body of literature that shows the role that was played by corporations in the USA, Europe and Japan in the formulation, adoption and enforcement of TRIPS (Sell 1998; Ryan 1998; Matthews 2002). According to Sell (1998), TRIPS was a product of economic coercion through the concerted efforts between the pharmaceutical and technology companies and state agencies. Such

corporations whose businesses are knowledge intensive played a crucial role to bring the IP issues into the GATT agenda for trade talks. So at the beginning of the Uruguay Round, despite initial resistance from developing countries, IP was brought into the realm of trade talks by the USA at the instigation of its powerful corporate sector. According to Drahos and Braithwaite (2002), this was part of a carefully planned corporate strategy to protect and enhance the position of corporate actors that had massive interests in knowledge. In their contribution, Drahos and Braithwaite also show the emergence of global knowledge firms and their strategic employment of the patent system (ibid.). This context and such developments informed the way in which strategies for globalisation of IP law were worked out and deployed through TRIPS.

Corporate actors got together from different industries and nationalities in a strategy described as “trans-sectoral trans-national initiative” (ibid.). This brought together companies in different industries and different nations to fight for a common cause. Companies realised that they were waging a similar campaign to attain the common goal of IP law protection. According to Sell (2002), organisations like the Intellectual Property Committee (IPC), the International Intellectual Property Association (IIPA), etc, brought together captains of various companies to shape the agenda for TRIPS. The IPC consists of 13 major corporations based in the USA with interests in high technology, biotechnology and pharmaceuticals and actively pushed for the inclusion of IP rights in the TRIPS agenda (ibid.). The major discursive strategy adopted was to link IPRs to trade so as to bring it within the parameters of the GATT negotiations. Specifically, it was argued that the inadequate IPR protection in foreign countries was a barrier to legitimate

trade (Matthews 2002). Thus previously self-standing and independent norms were brought together in a marriage initiated by the leaders of knowledge-intensive industries. This dominance of industry in the formulation of strategies and the push for TRIPS explains the widely-held view that in the battles over knowledge, TRIPS favours the needs and interests of corporations at the expense of other interest groups. It supports commercial interests and trade and silences the basic needs and survival of the public (Sell 1998).

In addition, it is also argued that corporations played a major role that gave them significant influence on the negotiating process by acting as the information gatherers and providers. According to Gervais (2002), the GATT secretariat lacked expertise in the area of IP resulting in an information gap that needed to be filled to facilitate the process. This meant that the costs of accessing information were quite high. One source that seized the opportunity was the corporate sector. They had the financial resources to harness the expert resources needed to reduce the information gap and costs for the Secretariat and the governments that were pushing for the inclusion of IPRs in the negotiations (Sell 1998). Thus the industry associations formed within the corporate sector played a crucial role as information providers and this consequently meant that their interests were generally well served in the process. Other players with interests in knowledge protection did not have the same opportunity and resources and as a result their needs were not given the same priority. However, these neglected players, such as Indigenous Peoples, environmentalists, developing countries generally, etc are the ones that are now posing great challenges to the new TRIPS order.

The USA also applied the strategy of coercive economic diplomacy to force nations to agree with their position on the inclusion of TRIPS in the trade talks (Matthews 2002, Sell 1998). It has been stated that the USA employed section 301 of its Trade Act and the Generalised System of Trade Preferences (GSP), to coerce non-compliant nations to upgrade and strengthen the IP regime world wide (Ryan 1998)¹⁷². It threatened sanctions and placed countries on “watch lists” to ensure that they complied. As Sell and others have shown, behind the US national strategy was the power of its corporations, which carried out research and supplied information and ideas to the government (1998). By linking IPRs to trade it ensured that costs of pursuit and enforcement of IP norms would be reduced. By use of its economic power, the US and other developed countries were able to use trade and economic leverage to pressure developing countries into compliance. On their part, it is argued that developing countries eventually yielded to TRIPS as a trade-off for gains that they expected to get in agriculture and textile industries (Ryan 1998). Unfortunately, such benefits have not been forthcoming and the developing countries have suffered net losses compared to the developed counterparts (Sell 2002).

7.2.3 TRIPS AND THE CONVENTION ON BIODIVERSITY (CBD) – TENSIONS AND CONTRADICTIONS

The potential clash between TRIPS and the Convention on Biological Diversity (1992) (hereafter the "CBD") is an example of how the globalised IP Law rules fail to account

for IKS and Indigenous Peoples' needs. It also illustrates the politics that dominate issues of knowledge protection at the international level (Quinn 2001). The dominance of TRIPS in the area of knowledge protection has been interpreted as potentially harmful to the gains obtained at the adoption of the CBD as far as Indigenous Peoples' are concerned (Weidlich 2003)

The CBD was adopted at the conclusion of the Earth Summit in Rio de Janeiro, Brazil in 1992. At least 200 states have ratified the CBD and another seven have only signed to it¹⁷³. Significantly one of the seven is the USA which ironically played the dominant role in the formulation and adoption of TRIPS during the same period. It is interesting to investigate why the USA has placed less emphasis on the CBD and yet played such a dominant role in the formulation of TRIPS. The CBD is a legally binding agreement for the conservation of biological diversity providing for fair and equitable sharing of benefits for sustainable use of genetic resources and knowledge. Whereas TRIPS makes no mention of IKS, the CBD makes specific references and provisions for its recognition and protection albeit for purposes of preserving biological diversity¹⁷⁴. The strategic link between indigenous knowledge and biological diversity is properly acknowledged in the CBD. It is therefore agreed that indigenous knowledge must be protected in order to promote the preservation of biological diversity with which it is connected (Maffi 2002). It also makes provision for the need to share benefits arising from the use of local

¹⁷² Ryan cites examples in the case of South Korea and China in the 1980s.

¹⁷³ Under the administration of President George Bush the Americans had rejected the CBD because of pressure from the biotechnology industry in connection with the use of IP rights. It was only signed on the last day under the Clinton administration (Huft 1995)

¹⁷⁴ For example Article 8 (j) of the CBD which provides for the recognition of the rights of Indigenous Peoples' to their traditional knowledge systems, bio-diversity and access and benefit sharing rights. Refer also to Chapter 1 of this study.

knowledge and biological diversity. Member states are obliged to enact laws to give effect to these and other provisions of the CBD.

However, regardless of the noble intentions embedded in the CBD, it has some limitations compared to the TRIPS regime. Firstly, while it is legally binding, it does not have the same force, coverage and effect that TRIPS has on a global basis. Once a state becomes a member of the WTO it is obliged to accept and give effect to all the agreements under the WTO. There is greater incentive to join the WTO because outside that global organisation, a state is in isolation and cannot possibly survive more so if it is a developing country¹⁷⁵. Thus states have very limited choice and this ensures that TRIPS and IP law have a global effect. On the other hand, the CBD is a convention which countries may choose to accept or refuse without affecting any other attendant benefits. It does not have the same coercive and globally binding effect as TRIPS and there are fewer extra incentives to join it as compared to TRIPS which is part of a larger WTO package. The weaknesses of the CBD were also recognised by the Workshop of Traditional Knowledge and Biological Diversity held in Madrid, Spain in 1997, which conceded that Article 8(j) “did not provide adequate legal basis for protecting knowledge of Indigenous Peoples”¹⁷⁶.

In addition, the USA, as one of the biggest countries with large interests in the protection of IP rights, has not shown the same enthusiasm in respect of the CBD. This contrasts sharply with its leading role in the formulation and adoption of TRIPS. The USA and its

¹⁷⁵ Big countries like China which initially were not party to the WTO have since joined the organisation knowing that to fully participate in the global trading regime, they have to be party to it.

corporations were more interested in the protection of IP and pointed out that the CBD threatened that interest (Sell 1998). In effect, by that selective process, the USA chose to define and recognise the WKS as deserving more attention and protection compared to the indigenous ways of knowing which the CBD attempts to protect. When one considers that it is the large pharmaceutical companies with a huge interest in exploiting IMK, it becomes clear that the dominant power has used its structural power to define what is “knowledge” that is worthy of protection. The Indigenous Peoples and developing countries without structural power have no capacity to do that. Consequently, they are left vulnerable to exploitation. In essence, the message seems to be that, what is not considered as “knowledge” becomes raw material for free extraction and use. There is no globally binding and effective system in place for the protection of rights to IKS and equally there is no system to prevent patents that use such knowledge for creating “inventions” (Shiva 2001). To that extent, the system underpinning TRIPS promotes biological and knowledge piracy in indigenous territories.

In addition, between the CBD and TRIPS there is clash of the private and public interest. On the one hand, the CBD is aimed at meeting the greater good by preserving biodiversity and the environment in general as well as community interests. On the other hand, TRIPS largely safeguards the private rights of individuals and corporations. In a way, the ethos of sharing benefits embedded in the CBD is undermined by the culture of monopolistic rights that TRIPS and IP generally encourage and promote. Some activists argue that since it embodies higher values aimed at promoting the common good the CBD ought to be the higher law at international level (Shiva 2001). Some nations like the

¹⁷⁶ Copy of Workshop report held on file.

USA reject proposals by the developing countries to recognise and protect indigenous knowledge by pointing to the alleged impracticability of identifying the sources of knowledge or genetic resources. They propose that instead the developing countries ought to provide access to corporations and conclude contracts¹⁷⁷. Nonetheless, the US position is consistent with the general attitude to IKS and the perception that there can be no identifiable creators or holders of indigenous knowledge. In terms of such an erroneous perspective, IKS does not belong to anyone but is a common heritage of mankind.

7.2.4 EMERGING CHALLENGES TO THE TRIPS ORDER

The global domination of IP law as the universal norm for knowledge protection has met with several challenges. As Drahos and Braithwaite (2002) show, while developing countries did not take an active part in the negotiation and formulation of TRIPS, they have become more involved in its aftermath. Developing countries argue that TRIPS furthers the commercial interests of corporations and fails to take into account the social and economic circumstances of developing countries (Sell 2002). For example they now argue that IP should be considered as a public health matter. In other words, knowledge is not just for the advancement of commercial interests of corporations but important to satisfy the goals of public health (ibid). Patents for medicines give monopoly to

¹⁷⁷ One notable example which is hailed by the US is the agreement between the pharmaceutical company Merck and the Caribbean country Costa Rica which provides for access and benefit sharing in respect of the biological materials in that country. There have however been some critical voices about the terms of such types of agreements (Stenton 2004; Weidlich 2003). It has been argued that access and contracts alone without more may pose problems for the poor communities with low bargaining power.

companies and they increase the cost of medicines. This means that poor people in developing countries fail to get access to medicines due to high costs (Bombach 2001).

The demonstrations by civil society groups at the Seattle (1999) and Doha (2002) WTO conferences are indications of the challenges that face the new global order in which TRIPS is an important part (Sell 2002). In the South African case, pharmaceutical companies challenged the legality of South African legislation that permits the development of generic drugs particularly to combat the AIDS scourge (Bombach 2001). Although they eventually withdrew the case more importantly it demonstrated the clash between Developing countries and knowledge intensive industry which has huge interests in IP protection and also the clash between commercial and public health interests (Sell 2002). These challenges are signs of resistance against the dominant norms.

One of the chief concerns that dominate debate in the knowledge arena is the issue of IKS. The fact that they have been left out of the knowledge protection regimes has been acknowledged. Several organisations such as the World Intellectual Property Organisation (WIPO) and civil society groups and networks have taken steps to carry out research into the indigenous knowledge systems. The WIPO Fact Finding Missions (1998-99) have produced detailed reports in a show of renewed interest to redress the problems that bedevil IKS. Two of the reasons why this has become a major issue are that firstly developing countries, which are the major sources of IKS and genetic resources have begun to realise that the current IP law regime does not adequately cater for their local knowledge systems. While knowledge-intensive industries in the

developed countries like pharmaceuticals are quite interested to carry out research and tap from IKS, there have been allegations of unfair exchanges with the Indigenous Peoples. As net importers of IP products the developing countries have found themselves having to pay more for technology while the developed countries have been able to access their knowledge systems without expense.

Secondly, Indigenous Peoples around the world have become conscious of their weak position relative to the rest of the global community. They have become an important political constituency on the global stage with issues of past and present human rights abuses, and political self-determination taking centre stage. To date various legal and non-legal instruments have been promulgated and Indigenous Peoples have become significant participants on global issues. The lack of officially recognised protection mechanisms for IKS has indicated the lacuna in the global system of knowledge protection. These are challenges to the current order of knowledge protection. They indicate that the norms for knowledge protection probably go beyond the TRIPS denominated standards.

The current situation exemplifies the battles over knowledge on a global scale. The interested parties are keen to support their respective positions while failing to accept that of the other. On the one hand the industrialised countries claim that IP law must be strengthened and extended in order to curb technological piracy by mostly developing countries. On the other hand the developing countries argue that there is a proliferation of bio-piracy by actors from the developed countries. Consequently they claim protection

mechanisms to safeguard their knowledge and material resources. As things are presently, the developed countries have an upper hand because they have managed to globalise a system of knowledge protection that responds to their concerns. Meanwhile, the developing countries continue to fight for the recognition of the knowledge systems of their people and their sovereignty over their material resources in order to curb bio-piracy. At the same time they have to comply with the TRIPS regime that globalises IP law norms with its consequent disadvantages to their position.

Arguably, knowledge is a source of important structural power in the world. Those who have the power to define what counts as knowledge for purposes of protection hold immense power over others. Having made the definitions the actors that possess knowledge hold power over those who do not possess it. The crucial question though is who defines what is “knowledge”? This is because those in a position to determine or define what constitutes knowledge can control who participates in their ranks. In addition, once they possess knowledge, they will be in a position to control access to that knowledge and the terms of communication and distribution.

This chapter has thus far shown how IP law became the dominant knowledge protection mechanism in response to the growing dominance of the western-style knowledge systems within particular settings. This extended to the global arena over the years and the TRIPS agreement represents the phase of globalisation of not only IP norms but also of the WKS as the dominant knowledge systems. The states and corporate entities have played a big role in this definition of knowledge and knowledge protection mechanisms.

In the present context there has been domination by the Western industrial states. **The** domination over the indigenous communities in all spheres was more prominent during the colonial period when Western states imposed their authority and defined what counted as knowledge.

The growth of global knowledge firms has meant that it is corporations that own and control most of the dominant scientific knowledge. They have the power to define the terms by which that knowledge is stored and disseminated. Crucially, they have the power to determine that to constitute knowledge certain specifications must be met. They can devise systems through which knowledge is accepted as such. They had a huge impact in the formulation and adoption of TRIPS. Meanwhile however, consistent with the thesis of struggle, new challenges have emerged over the recent past indicating that the battles over knowledge and its protection are set to continue. For the purposes of this study it is within this context that the battles over the control of IKS are situated and assessed. At this stage, it is necessary to critically assess the applicability of IP law as the dominant knowledge system, to the knowledge systems of the Indigenous Peoples.

7.3 CRITICAL ASSESSMENT OF THE APPLICABILITY OF PATENT LAW TO IMK SYSTEMS

7.3.1 THE WEST AND ITS INDIGENOUS “OTHERS”

As a knowledge protection mechanism, patent law was developed in a different set of conditions from those in which IMK is traditionally located. According to Tunney, as a

body of law IP is “peculiarly from a European tradition [and] is arguably inherently inappropriate/dysfunctional in relation to the needs of indigenous peoples” (1998: 336). It is part of the positive legal order of Western states built in the context of liberal political traditions and largely created to secure market place objectives (Drahos 1999). IP law is concerned with the protection of human knowledge as conceived within western intellectual traditions. As an historical process, the development of IP law “reflects the cultural and economic imperatives of specific “western” polities with a relatively homogenous political, cultural and socio-economic infrastructure” (van Caenegem 2002: 326). Thus the characteristic and key elements of the IP law system draw roots from the social, economic and technological conditions of Western Europe. According to Mpande, the intellectual property rights regime in Zimbabwe is based on the western methods of knowledge development and western concepts of ownership and that makes it difficult to reconcile with the traditional notions of knowledge use, title and exchange in local communities.¹⁷⁸

Notwithstanding the differences, these rules steeped in western legal traditions have become the dominant legal norms in indigenous territories. The resulting tensions that exist between the conceptions of knowledge in indigenous communities and the western world within which the IP regime developed have been noted by other scholars (Yano 1993).¹⁷⁹ These differences cover areas such as whether knowledge can and should be owned by an individual to identifying the true beneficiaries of the benefits arising from

¹⁷⁸ Mpande R. Unpublished paper on file

¹⁷⁹ See also Adewapo, A. who refers to the philosophical divergencies between IP systems and local, indigenous systems.

the use of knowledge and therefore lie at the centre of the current problems in respect of IKS.

The problem is that in their pure state there are certain characteristic features of IMK systems that place them beyond the subject matter properly covered by the patent system. Scholars have referred to the failure of the contemporary IP law system to take account of these unique features of IKS generally (Blakeney 1997, Drahos 2000; Kuruk 1999). In the case of Zimbabwe, Mandudzo has also noted that generally the rights of Indigenous Peoples are not catered for under the contemporary IP law regime (1997). There are key characteristics such as the spiritual elements of IMK which beyond the current scope of IPRs. Although it is true that there are also some aspects of WSK such as medical techniques that cannot be protected under the current IPR system, it is fair to state that by comparison, IPRs generally cater for WSK than they do for IMK.

In addition, in order to develop and assert claims over certain parts of human knowledge particular rules were developed in accordance with the conditions prevailing in the industrial world. In this context, IP law rules determine that only certain areas of human knowledge can be extracted and commodified into property (Tuhiwai-Smith 1999). The property rights that were developed enable the creation of a package of knowledge to make it a legal and marketable object. This process of classification and commodification of knowledge provides the legal basis for its control. The system set particular characteristics of knowledge that have to be met in order to assert claims to facilitate acquisition of legal control. These legal characteristics include external illustration and

precise delineation of knowledge e.g. writing on paper, or creating an identifiable object, identifiable inventor, novelty, limitation of rights over time, etc¹⁸⁰ (Blakeney 2000).

Therefore, arguably patent law was developed with WKS in mind and may never have contemplated the existence of other knowledge systems that may have different characteristics (Chavunduka 2002)¹⁸¹. These differences lead to charges of discrimination since it appears that indigenous knowledge is not treated as intellectual property worthy of protection although the knowledge of modern science is granted protection through IP laws (Mugabe 1998). It is against such a background of differential treatment that calls for protection systems that are sensitive to the characteristics of IKS are gathering momentum.

7.3.2 THE PUBLIC DOMAIN AND THE EXCLUSIONARY EFFECT OF INTELLECTUAL PROPERTY LAW

In the context of IP law, the public domain consists of knowledge that is not subject to IPRs and is freely available for use by any person. It is also sometimes referred to as the “intellectual commons” or the “public sphere”. There are at least three classes of knowledge that fall within the ambit of the public domain:

¹⁸⁰ These technical requirements are discussed in more detail below.

¹⁸¹ However other scholars argue that as IP has been adapted to suit new forms of knowledge such as biotechnology, semi-conductor technology etc, it is not enough to dismiss it on the ground that it never contemplated indigenous knowledge systems as part of its original subject matter.

- i. knowledge that was previously subject to IPR protection but whose term has expired;
 - ii. knowledge that has not been claimed for IPR protection;
 - iii. knowledge or intangible goods that are beyond the scope of protection of IP laws.
- (van Caenegem 2002)

At a broader level, the problem is that when viewed from this perspective, indigenous knowledge largely falls beyond the IP law system and when it is classified as part of the public domain it is exposed to free expropriation. Firstly, most indigenous knowledge has been available for generations and has generally not been claimed for protection within the realm of IP law. Its holders were either unaware of the existence of IP law or did not have the capacity to access its protection mechanisms. It may also be that they had their own protection systems that do not necessarily fall within the IP law system. Secondly it may be that from a technical point of view the nature of indigenous knowledge does not conform to the subject matter that is protectable under the IP law system¹⁸² (Mgbeogi 2001).

The rule that all knowledge that is not subject to IPRs is in the public domain has the effect of disempowering the Indigenous Peoples because it accommodates justifications for the dispossession of their rights to knowledge simply because it does not meet the requirements of the dominant legal order. The rule disregards the reality that other people

that might have a prior claim to knowledge on the basis of different normative structures within their societies (Drahos 1999). As van Caenegem (2002) points out such claims include those of Indigenous Peoples that are justifiable and legitimate on the basis of social, cultural and political grounds that are however not accepted or recognised by the dominant Western based norms. The problem is that the dominant legal order does not recognise these existing social, economic and cultural norms that inform the control of knowledge in indigenous communities, e.g. social exchange, close religious/cultural connection, unlimited duration of control over knowledge. At this level therefore IP law is exclusionary and ultimately dispossesses people of their right to control their knowledge by classifying it as part of the public domain.

The indiscriminate labelling of indigenous knowledge as falling within the public domain simply because it is not claimed or capable of being claimed within the realm of the IP law system ignores the existence of local systems of entitlement, control and protection (Quinn 2001). This undermines the bases upon which the Indigenous Peoples can make claims to their knowledge and resources. The fact that some knowledge is held collectively does not imply that it falls in the public domain as conceived through the lens of the IP law system. Instead, it is necessary to go deeper and understand the systems used to allocate rights of entitlement to use and control of knowledge. This study involved explorations of the norms and traditions used by the indigenous groups in Zimbabwe to assert claims over their knowledge. It will demonstrate that despite being

¹⁸² Refer to section below that discusses the technical incompatibilities of IMK under the patent system

classified within the public domain from the IP law perspective, the traditional holders have prior claims to the knowledge based on their own local systems¹⁸³.

7.3.3 THE EXPLOITATIVE CHARACTER OF IP LAW

In addition to its exclusionary effect, IP law is implicated as a tool in the expropriation of IKS. Gervais (2001) refers to this as the “positive exclusionary effect” of IP law. The explanation is that when indigenous knowledge is classified as part of the public domain it becomes available for free expropriation. Since the local systems that recognise indigenous entitlements to knowledge and other assets are not given due legal recognition when researchers take and use information they do so without the constraints that they would otherwise encounter if that information were legally protected by a formal system¹⁸⁴. In cases where they pay for the information the likelihood is that they pay very minimal amounts as the contracts are made between parties of unequal bargaining power. In any event, the resultant products are patented in the name of the commercial

¹⁸³ For a discussion of these local systems refer to chapter 8 below.

¹⁸⁴ The problems faced within the domain of knowledge can be analogised with the problems that affected indigenous territories during the colonial encounter. Historically when non-Indigenous Peoples entered Indigenous Peoples’ territories they considered that the locals had no title to the land. They considered it to be empty land to which they were entitled to make claims of appropriation. It was referred to as *Terra Nullius* and this provided justification for the apportionment and ownership of land of the aborigines in Australia. *In Re Southern Rhodesia* the Privy Council also ruled that the lands in Southern Rhodesia (now Zimbabwe) were empty in that the locals had no private title to property. It provided the justification for the territories that had been expropriated before and the measures that would take place thereafter. The same view of land is paralleled by the view of knowledge in indigenous communities. These are conceived as knowledge systems that are empty and available for appropriation by anybody. Where there was *terra nullius* in relation to land, activists and scholars like Shiva refer to it as “*Bio-nullius*” in relation to knowledge and genetic resources (2001). Van Canegaem calls it “*Scientia Nullius*” (2002). The acts of appropriation of creativity of the Indigenous Peoples are defined as “inventions” when viewed from the perspectives of the Western knowledge systems. The concept of *Terra Nullius* has now been discarded in Australia finally giving tacit recognition of the title to land of indigenous peoples. However these landmark developments are yet to take effect in other areas of interest such as knowledge as the dominant IP systems for knowledge protection appear to perpetuate the impression that indigenous peoples do not have title to their knowledge resources.

researchers without acknowledging the contribution of the Indigenous Peoples that supplied the primary knowledge. The extraction and incorporation demonstrates how the IP law system becomes a tool to legitimise the expropriation of the IKS as those who do it can always claim to be acting in terms of the law (Quinn 2001). Through research and development projects the primary knowledge is repackaged into subject matter that can fit within the requirements of the patent system. In other words, scientists convert, construct and repackage selected elements of IMK into a form that is compatible with the patent system. As Tuhiwai-Smith puts it,

“Researchers enter communities armed with goodwill in their front pockets and patents in their back pockets, they bring medicine into villages and extract blood for genetic analysis...” (1999: 24).

Thus while at one level patent law largely fails to protect IMK as a legitimate body of knowledge, at another level it can still be used to make claims over knowledge products and processes that are derived from its use. Therefore, knowledge that has been extracted from indigenous communities is used to make “inventions” as conceived within the Western scientific traditions and protected by the patent system. In effect, knowledge previously unknown to the non-Indigenous communities is left exposed under the current knowledge protection regime although the products extracted by modern scientists using that knowledge are protected by the patent system (Huft 1995). The non-participation and lack of acknowledgement of the indigenous communities is the key problem in the process.

The subordination of the local normative structures that support claims of Indigenous Peoples to their knowledge by the IP law system enables the free expropriation of indigenous knowledge. In the result WKS are enriched by the formalised extraction of knowledge from the indigenous communities. Commercial entities that select and construct these products are able to obtain patents but the Indigenous Peoples who would have contributed to the construction of the products by supplying the original knowledge do not have a claim or route to make a claim within the realm of IP law¹⁸⁵. Indeed as presently constructed, IP law does not provide avenues for asserting claims for compensation by Indigenous Peoples and they have to depend on the goodwill of the research entities. Thus on the one hand it is difficult for Indigenous Peoples to assert their claims under the IP law system and on the other hand the system facilitates the expropriation of their knowledge without compensation or recognition.

7.3.4 DIVERGENT VIEWS ON PROPERTY

IP law has roots in the property rights system that developed in the historical context of Western Europe (Drahos 1996). Property rights define the ways by which people related to things and among themselves. From Hegel to Locke and other liberal theorists attempts were made at a philosophical level to explain and to an extent justify the right to private property in society (McPherson 1988; Darien-Smith 2002). The concept of property in contemporary law has been shaped by the historical growth in Western Europe. When for

¹⁸⁵ There are a few cases however, where the submission of existing prior knowledge of indigenous peoples was accepted when a patent was withdrawn in the US. However this was only because the indigenous knowledge had previously been reduced to writing otherwise it might not have mattered. See discussion on oral nature of indigenous knowledge below.

example colonisation of Indigenous Peoples in other regions took place there was an imposition of the legal systems and structures that had been developed in Western Europe. Thus Blakeney (1997) explains that the IP laws of Australia reflect the influence of the English industrial and technological circumstances in content and interpretation. In Africa, scholars note that most laws were indigenous merely because they were passed by the local legislature but the content and philosophy reflected that of the colonising Western European nations (Nkala & Nyapadi 1995; Bentzon et al. 1998). The imposition of foreign property regimes in indigenous communities disregarded the existence of norms that guided people's relations to things within their own communities. The attitude and views that there were no property regimes in indigenous communities seem to have been held over for a long time (Darian-Smith 2002).

However, emerging views show that in fact Indigenous Peoples had norms that regulated the way they related to things and these proprietary regimes have only been ignored by the formal system for a long time. According to the WIPO Draft Report,

“proprietary systems do exist in many traditional societies but, equally any assumption that there is a generic form of collective/community IPRs ignores the intricacies and sheer diversity of indigenous and traditional proprietary systems” (Draft Report of the WIPO Fact Finding Missions (1998-1999)).

It is gradually being recognised that Indigenous Peoples have always had their own systems of classification of knowledge, its acquisition, distribution, exchange, rights and

responsibilities developed in the context of each community and culture (Weidlich 2003; Quinn 2002). The way they place value on knowledge differs from the way the same knowledge is valued by another or by the Western scientific society (Coombe 1998; De Koning 1999). This study explores these systems within the Zimbabwean context assessing their strengths and weaknesses in the current age.

There may be some semblance of similarities between these norms and the modern IP law regime but there are conflicts particularly in relation to the conception of individualism or collectivism in respect of property ownership. While private rights and individuality are central elements of the IP law system, there is abundant evidence of the importance of community rights and individual responsibility in indigenous communities (Posey & Dutfield 1996). There is a system of rights and responsibilities in the indigenous communities that defines the relationship between people in relation to things that does not correspond to the IP system (Kuruk 1999; Posey & Dutfield 1996)¹⁸⁶. Indeed because of the clash in such vital conceptions some scholars have called into question the relevance of applying Western philosophy of property such as Hegelean or Lockean theories in relation to IKS (Dutfield 1999). Instead it is necessary to look into the indigenous systems and find the philosophies that underpin knowledge formation, application and distribution and not rely on the foreign theories that were moulded in different circumstances. Posey and Dutfield (1996) concluded that IP laws cannot accommodate the complex non-Western systems of ownership, tenure and access and

¹⁸⁶ The field report in this study (Chapter 8) will demonstrate the problems over the conception of property in indigenous communities in Zimbabwe.

therefore provide the communities with limited legal channels to assert their ownership of knowledge.

7.3.5 INCOMPATIBILITY WITH PATENT REQUIREMENTS

At a technical level there are difficulties in relation to the compatibility between IKS and the IP law system. Specifically, it is technically difficult to use the law of patents as it is incompatible with the nature of IMK (Huft 1995; Jacoby & Weiss 1997; Yano 1993).

Patents are granted only for inventions that satisfy specific legal requirements. Thus in order to obtain a patent an invention must satisfy the following essential conditions:

- i. It must be new
- ii. It must involve an inventive step
- iii. It must be non-obvious
- iv. It must be industrially applicable
- v. It must not be excluded subject matter (Cornish 1999).

The law specifies that only knowledge that satisfies these required conditions can be patented. All other knowledge that fails to meet these conditions is not capable of being protected by the patent system. The general tenor of the argument is that most IMK fails to meet these conditions and is therefore beyond the ambit of the patent system (Yano 1993; Coombe 1998). In any event, even within the WKS there have been many disputes as to whether certain products or processes are patentable under the system.

A patent application must also meet specification requirements, which means that there must be sufficient disclosure of certain minimum information for the award of a patent. The legal requirement of an enabling disclosure means that the applicant must disclose sufficient information that would enable a person skilled in the art to perform the invention. In addition, a patent is limited in duration and the term currently specified under the TRIPS agreement is 20 years. The system also requires capital outlay and applicants have to pay money for registration and ensuring that mechanisms for the protection of the patent from infringement are put in place¹⁸⁷. The system demands vigilance on the part of the patent holder. It is important to measure IMK in terms of these technical and operational requirements in order to assess its compatibility with the IP law system.

7.3.5.1 NOVELTY AND INVENTIVE STEP

Patent laws require that a product or process must be new. An invention must be novel in the sense that it does not form part of the existing state of the art (Cornish 1999). Generally, if it has been made available to the public in any form then it is not considered as new for purposes of obtaining a patent. The determination of novelty calls for a factual investigation of the claims made by the applicant against the existing knowledge. It must also be demonstrated to be an improvement from the existing art. The determination of whether or not there is an inventive step is qualitative as it involves an evaluation of the invention with reference to the state of the art at the time of the application. Hence the

¹⁸⁷ In Zimbabwe a lawyer of 10 years experience charges at least Z\$250000 per hour in country where the average monthly wage is below Z\$200000 (Zimbabwe Independent 5/12/2003)

requirement that it must be non-obvious to someone skilled in the art. The idea is to encourage inventors to improve existing technology and to get the benefit of protection only for activity that adds value to existing knowledge. The key question is whether IMK can satisfy these requirements given that the knowledge has been developed over so many years and is generally held across communities.

While most of the IKS date back into history, they have continued to develop incrementally over time (Chavunduka 1994; Posey & Dutfield 1996). Thus the terminology such as "folklore" or "traditional knowledge" should not necessarily indicate antiquity but merely the means by which knowledge has been developed, stored and transferred over time (Blakeney 1997). Therefore while the knowledge might be new to the world beyond the community within which it is generally held, that is not enough to satisfy patent requirements as presently formulated (Mugabe 1998). If someone were to attempt to patent a particular traditional drug used for centuries, it might be defeated on the ground that it lacks novelty as it may be known to some members of the community. Given the fact that other highly sophisticated scientific inventions can fail to meet patent requirements, the chances of IMK meeting the requirements are quite daunting.

As indicated it may be possible to extract knowledge and resources from the IMK system and use them for purposes of meeting the requirements of the WSK and therefore stand a better chance of meeting the requirements for patentability (Stenton 2004; Huft 1995). A scientist trained in the WSK system can acquire the traditional knowledge and resources with medicinal properties and extracts the relevant active ingredients in the laboratory.

Ultimately he might create a drug from the extract or go further and create a synthetic product based on that extract. The steps that he takes may satisfy the requirements of the WSK that the current IP laws generally protect. Despite the fact that the primary knowledge and the biological resources already exist in the indigenous community the result of the scientist research is considered to be a discovery. Since that knowledge does not exist within the dominant knowledge system, the “discovery” stands better chances of satisfying the novelty requirement particularly if the awarding authorities are not aware of the prior existence of the knowledge in the indigenous societies.

The key problem in this case is that there is no consideration of the prior knowledge that exists in indigenous communities because the latter is not considered as knowledge. This problem is more acute in legal systems that pay little regard to IMK such as the USA (Stenton 2004)¹⁸⁸. The marginalisation of IKS places them in situations where the holders of the knowledge can hardly assert their prior claims and rights. When IMK systems are dismissed in that way there is limited room for their relevance when considering prior art to determine the novelty of a product or process. If the intellectual foundation on which the IP law system is built adequately recognised the existence of other knowledge systems, there would probably be a consideration of all that is available before granting an IPR. There are a few exceptions to this exclusion of other knowledge systems. For example *Tumeric* case is one instance when the existence and legitimacy of knowledge systems other than the mainstream western systems was eventually recognised¹⁸⁹. When

¹⁸⁸ Stenton points out that at least in European and UK Patent laws, prior knowledge is not restricted to the knowledge available in their specific jurisdictions e.g. Section 2(2) of the UK Patents Act (1977). Japan and the USA however appear to take the opposite stance (Stenton 2004)

¹⁸⁹ Refer to Chapter 1 where the *Tumeric* case is described.

the Indian Council for Scientific and Industrial Research objected to the patent on the grounds that *tumeric* had been used for thousands of years in India, the US Patents and Trade Marks Office agreed to cancel the patent¹⁹⁰. However, the challenge succeeded not because of unqualified recognition of IMK but largely because that particular knowledge conformed to the requirements of the WSK. It had been reduced to writing in an old text and had it not been so, it could have been quite difficult to sustain the challenge.

Closely related to that problem is the fact that most indigenous knowledge is oral-based. It is only in cases where researchers have written about their findings that parts of IMK have been published. The fact that it is oral-based means that in some jurisdictions such as the USA it cannot be considered as prior art for purposes of assessing patent applications. In the USA publication is narrowly defined to include only printed matter, with the implication that it excludes oral knowledge (Stenton 2004). The implication is that the existence of oral IMK does not necessarily stop authorities from granting patents for a product or process based on that oral knowledge. This is confirmed by the dicta of the US Supreme Court in the case of **Gayler v Wilder**¹⁹¹ in which it was stated that,

"If the foreign invention had been printed or patented, it was already given to the world and open to the people of this country, as well as of others, upon reasonable inquiry. They would therefore derive no advantage from the invention here. It would confer no benefit upon the community, and the inventor therefore is not considered to be entitled to the reward. But *if the foreign discovery is not patented, nor described in any printed*

¹⁹⁰ Refer to <http://www.twinside.org.sg/title/tur-cn.htm>

¹⁹¹ 51 U.S. 477 at 497 (1851)

publication, it might be known and used in remote places for ages, and the people of this country be unable to profit by it. The means of obtaining knowledge would not be within their reach; and, as far as their interest is concerned, it would be the same thing as if the improvement had never been discovered. It is the inventor here that brings it to them, and places it in their possession. And as he does this by the effort of his own genius [i.e. no unjust reward], the law regards him as the first and original inventor, and protects his patent, although the improvement had in fact been invented before, and used by others." (*emphasis added*).

Kadidal (1997) demonstrates that section 102 of the US Patents Act continues to discriminate against foreign prior art that is not reduced to writing. The recognition only of foreign patents or printed matter is inadequate in cases of indigenous knowledge most of which exists in oral forms¹⁹². It would be necessary to remove the distinctions as to the nature of the foreign prior art as section 2(2) of the UK Patents Act provides.

The result for the Indigenous Peoples whose knowledge is unpublished is that it can be appropriated to make a product and if a challenge is made it will be weak because it fails to satisfy the required standard. In other words to qualify as knowledge for purposes of considering the state of the art, information must be in printed form. Due to the fact that it is oral-based it will not be considered as "prior art" for the purpose of assessing patent applications. As Mgbeoji (2001) shows, the maintenance of this distinction between written and oral knowledge for purposes of patent assessments is in the economic

¹⁹² Kadidal provides a detailed assessment of the problems associated with the distinctions in respect of foreign prior art in US law with specific references to the Indian Neem tree controversies (1997).

interests of states that rely on the WKS and undermines the Indigenous Peoples with largely oral based knowledge systems. The fact that in major jurisdictions such as the USA oral based knowledge is not ordinarily taken into account as existing knowledge within the realm of IP law shows the extent to which IMK systems have been marginalised from the mainstream. To some extent however where due to research into indigenous medicine there has been publication, these accounts might be used to defeat patents that might be granted on aspects derived from IMK. The only problem is that Indigenous Peoples lack the sufficient resources to monitor the patent systems throughout the world.

7.3.5.2 INDUSTRIAL APPLICABILITY

A patentable invention must be must be capable of industrial application. In this respect, patent law denotes categories of subject matter that are covered such that not all knowledge is held back from the public domain. There are some things that are not covered such as general discoveries, scientific methods, medical techniques, etc. It also shows the link between the development of WSK, the industrial revolution and the IP law system. Patent laws developed and blossomed at a time when industrial expansion in Europe was underway during the industrial revolution (Drahos 1996). Thus the requirement was meant to encourage the development of research and knowledge that was oriented towards technological development. It also explains the commercial-orientation of the WKS and the IP law system, which was devised to protect it. However, it also implies that knowledge that is protected is only that which meets industrial

requirements and by so doing the system might “exclude all sectors that produce and innovate outside the industrial mode organisation of production” (Shiva 2001: 113).

Generally, IMK systems developed largely on the foundation of the need for survival and were not necessarily geared towards the needs of industrial application. Under the circumstances unless it is transformed to meet the standards it may be difficult for most IMK to meet the requirement of industrial application. However it is also argued that IMK could easily be remodelled in order to meet the requirements of the patent system (Huft 1995). This would require re-packaging IMK within the realm of western science in order to satisfy the standard. This, in fact, is what researchers and commercial entities have been doing in order to fully utilise IMK as they re-package it for commercial use (Stenton 2004). While this may be plausible, opponents would argue that this could destroy the autonomy of IMK as a knowledge system and has cultural or other implications if not properly managed (Coombe 1998).

Notwithstanding these objections, even if it were accepted that IMK could be re-packaged to meet the industrial application requirements, arguably the difficult and contentious aspect is the allocation of rights arising from this repackaging of knowledge (Huft 1995; De Koning 1999). In fact, this is the central problem faced today whereby allocation of rights to products developed from the use of indigenous knowledge is a hotly disputed issue precisely because the patent system does not provide avenues for Indigenous Peoples to assert their rights or claim compensation (Quinn 2001). To that extent, this study is concerned with how rights to products of knowledge arising from

IKS can be fairly and equitably allocated between researchers and Indigenous Peoples¹⁹³. Rather than focusing on the contest of whether patent rights can be properly applied to IMK systems it is now more vital to focus on what to do when IMK is repackaged into the industrial mode.

All conditions must be satisfied before a patent can be granted. At a technical level it seems an enormous task for holders of IMK to satisfy the requirements of the patent system (Posey & Dutfield 1996; Laurie 1997). Thus, besides the fact that the rationale behind the two knowledge systems and their protection systems are different, there are technical difficulties in trying to apply the patent system to IMK in its pure form. It might be possible, in some circumstances to obtain patents for some IMK aspects but overall most of the knowledge would be left in a vulnerable state that permits its exploitation. In any event, the crucial question is that even after being repackaged to fit the patent requirements, how are the rights to the products allocated? One must therefore go beyond the difficulties of satisfying technical requirements of the patent system and focus also on the practical issues of implementation and use.

7.3.6 OPERATIONAL AND PRACTICAL ASPECTS OF THE PATENT SYSTEM

¹⁹³ Huft (1995) has discussed the possibilities of applying for joint-patents between Indigenous communities and the scientists and finds that there can be problems unless there are laws to regulate that relationship. The contractual method such the Merck-Costa Rica agreement is a possibility but has also been criticised for the amounts that it provides relative to the number of biological products available (Stenton 2004) There is a fear that unequal bargaining power and unfair terms might operate to the disadvantage of the local communities.

In addition to the conceptual and technical difficulties there are also problems at the operational level. At this level even on the assumption that the patent system works for IMK systems, it is arguable that the operation of the system is ill-suited to the situation and needs of Indigenous Peoples whose rights to IMK are under threat. It is to those issues that this discussion now turns.

7.3.6.1 DISCLOSURE REQUIREMENTS

Arguably one of the benefits of the patent system is that it adds to the store of knowledge by encouraging innovation requiring patent applicants to disclose a minimum amount of information about their invention. According to Article 29(1) of the TRIPS Agreement a patent applicant must disclose sufficient and clear information regarding the invention to the extent that another person “skilled in the art” would be able to reproduce the product or process. The fulfilment of the disclosure requirement is the price that applicants must pay for securing patent protection. The idea is that such disclosure adds information to the public domain enabling other people to use it to develop new inventions. In addition, after the expiry of the term of the patent, the knowledge that was protected becomes available to any other person. However this could encounter problems in indigenous communities where some specialist knowledge is held secretly and there is no incentive to disclose information. Some information may be considered sacred to the extent that disclosure would be seen as culturally insensitive requirement.

Nonetheless as the fieldwork findings in this study will show such opposition may no longer be strong given the extent to which IMK has been disclosed through past and current research in indigenous communities¹⁹⁴. In addition, the availability of IMK is arguably useful for purposes of solving medical problems world wide. Many people, including Indigenous Peoples have benefited from the advancement of knowledge in various ways and given the changes it would be hard to put a total stop to utilising IMK. As the fieldwork findings will show, Indigenous Peoples themselves are not averse to research *per se* and have participated in research activities over the years. The problematic issue is the way in which rights to and benefits of the results of the research have been allocated.

7.3.6.2 AUTHORSHIP

The IP law system generally has a bias towards individual authorship. It requires an identifiable creator of a product. This arises from the Western conception of the individual as the centre of creation of knowledge and the idea that privileges private ownership. In this scheme of things, the idea of collective rights is relegated to the margins. The creation and authorship of knowledge in indigenous communities goes beyond placing the individual at the centre and recognises the participation of the community (Blakeney 1995). IKS have developed over generations and while there is individual creativity the role of the community is also important. It is believed that knowledge is a gift from God and that it is transmitted to the community through the ancestors. The individuals who receive knowledge through ancestors cannot therefore

¹⁹⁴ See Chapter 6 detailing the findings in relation to research publications in Zimbabwe.

claim to be the authors of the knowledge and neither can the existing community do so (Chavunduka, 2001)¹⁹⁵. The identification of an author or inventor as required by the IP system could raise difficult issues that require investigations not generally contemplated under the current system. A recent case in Australia demonstrated that the IP law system does not contemplate the existence of indigenous communal rights (Blakeney 1995 and 1999)¹⁹⁶. Consequently the courts in that country have called for legislative intervention to recognise indigenous communal rights that the IP system does not currently accommodate sufficiently.

7.3.6.3 COMPLEXITY AND EXPENSE - AN UNEVEN PLAYING FIELD

Additionally, at the practical level are the problems arising from the complexity and expense of the patenting process. The IP law system is steeped in the western intellectual tradition that privileges written manifestation and not just oral recording of knowledge. The web of rules and procedures is complex enough that it may be difficult for indigenous communities to fully understand and apply particularly where literacy levels are low. Orality is a key aspect of the indigenous systems of knowledge. The question is

¹⁹⁵ Refer also to the nature of IMK and transmission in indigenous communities in Zimbabwe in Chapter 8 below.

¹⁹⁶ **Yumbulul v Reserve Bank of Australia** (1991) 21 IPR 481 where the Federal Court held that copyright law in its current form does not provide adequate protection of Aboriginal community claims to regulate the reproduction and use of works which are in essence communal in origin and nature.

whether the Indigenous Peoples have the operational capacity to conform to these requirements (Huft 1995; Weildich 2003).

The complexity of the rules is compounded by the high expenditure that is required for participation in the system and consequently accessibility to the protection system is hampered by the cost factor (Posey & Dutfield 1996; Blakeney 1999). The costs of accessing the system can be divided into three categories:

- i. Costs of undertaking research to conform to the dictates of western scientific knowledge whose subject matter is protected by IP rights;
- ii. Costs of filing application and registration of patents and
- iii. Costs of protecting the patent, i.e. maintaining vigilance and pursuing infringement proceedings.

The costs of filing an application for a patent are generally high while the expense of protecting a patent by maintaining vigilance and filing infringement proceedings can be prohibitive bearing in mind that Indigenous Peoples constitute some of the most economically impoverished people in the world. Most are still in the fringes of market economies. They struggle to survive and the cost of participating in an expensive patent system on their own is unaffordable. Therefore, while it may be argued that there are possibilities of protecting IMK by patents, issues of registration, maintaining and

protecting the patents remain difficult impediments. The costs might outweigh the benefits as they will be hindered from fully utilising the system to protect their rights.

Additionally even if Indigenous Peoples were able to utilise the existing patent system it is doubtful whether at a practical level they would be any better than they are now because arguably they would be unable to compete with the strong business and research community. The structure of the system seems to be biased towards the WKS and entities aligned to it such that Indigenous Peoples will remain in the fringes. Since the playing field is uneven, the research and business community would clearly out-compete the poor indigenous communities. Consequently, patents may not be an efficient way of protecting Indigenous Peoples' rights because they cannot compete with the powerful business community.

7.3.6.4 CLASH OF VALUES, CULTURAL AND MORAL RIGHTS

The arguments from an economic perspective are that for knowledge intensive industries to undertake research and development there has to be a guarantee that they will receive profit (Kongolo 2000). The granting of monopoly rights to the manufacturers is considered to be a necessary incentive for promoting research because during the period of monopoly they can achieve profits in the absence of competition. The creations are therefore primarily measured in terms of economic value. In the case of IMK it is often argued that pharmaceutical companies have to incur great costs in redefining and repackaging the knowledge to meet industrial requirements (Grubb 1999). It is argued

that this addition of value requires protection to enable them to do further research for the good of mankind. Stenton disputes this view, arguing that this perspective fails to acknowledge the efforts, labour and sacrifices of the Indigenous Peoples that they have had to invest over generations in order to come up with that knowledge that the companies now take and use commercially (Stenton 2004). When this effort and investment is taken into account it demonstrates that the financial costs put forward by companies are of no more greater importance as far as the indigenous communities are concerned.

It is further argued that protecting IKS goes beyond mere economic considerations (Coombe 1998). While under the current IP system protection is an incentive for inventive activity, for Indigenous Peoples it is a matter of cultural integrity and survival of a way of life (Blakeney 1997). The cultural, spiritual and social values of Indigenous Peoples are closely interwoven with their knowledge systems. Indigenous knowledge is significant not just for the economic benefits that it brings to its holders but also for the cultural and spiritual life in the community¹⁹⁷. It is through the holders of knowledge that the community links with the spiritual world and it is that belief that informs their worship of the ancestors. This is particularly the case in respect of the aspect of spirituality that is embodied in most IMK.

¹⁹⁷ This was echoed in the Australian case of Milpururu v Indofurn Pty Ltd (1994) 54 FCR 240 where the court noted the concern that aboriginal art was being appropriated in ways that violated their cultural rights and even monetary compensation was inadequate. In that case Judge van Doussa stated in his dicta that "The reproduction of paintings which depict dreaming stories and designs of cultural significance has been a matter of great concern to the Aboriginal community. Pirating of Aboriginal designs and paintings for commercial use without the consent of the artist or the traditional owners was common for a long time. The recognition of the sacred and religious significance of these paintings, and the restrictions which Aboriginal law and culture imposes on their reproduction is only now being understood by the white community." Refer also to Blakeney's analysis of this case (1995).

Marketing and selling the commodified knowledge in the global marketplace can be interpreted as offensive from a cultural point of view because it has potential to distort local tradition and culture in order to suit market requirements. As Coombe states, “That which is spiritual cannot be sold and must be treated with care and respect” (Coombe 1998: 239). The rationale for the protection of knowledge in indigenous communities differs from that of the IP law system in that it goes beyond the premium status of economic considerations. It is argued that the wealth maximisation incentive of the western model of legal protection may not be the appropriate one to IMK systems (Quinn 2001). The issue of exploitation of IKS by the business community has also entered the human rights terrain. In that respect the appropriation of knowledge is seen as a violation of economic, ecological and political rights of Indigenous Peoples (Mugabe 1998). As Stenton (2004) points out the use and protection of indigenous knowledge is also a moral issue. Therefore one can see a clash between the economic interests of pharmaceutical companies on the one hand and the moral value placed on the knowledge by the traditional holders and users. Arguably patent laws in their present state do not have the capacity to resolve this dispute¹⁹⁸.

In addition, the issue of protection of indigenous knowledge needs to be assessed from a wider perspective. The claims pertaining to indigenous knowledge are part of a broader

¹⁹⁸ Unlike Copyright law in some jurisdictions such as Germany, patent law does not take account of moral rights in expressions and creations. Thus there are objections that IMK might be used in culturally demeaning ways, which would violate the moral rights of the holders and the community. This failure to account for moral rights at the minimum makes the patent system causes problems as far as the protection of IMK is concerned.

struggle by the Indigenous Peoples' movement. The nexus of spiritual, ecological, cultural, knowledge and territorial claims is an important aspect of the whole movement. These issues cannot simply be prised from the context and dealt with on an individual basis. As Coombe puts it,

“Simplistic reductions of Native concerns to trademark or copyright considerations and assertion of intellectual property rights fail to reflect the full dimensions of Native aspirations and impose colonial juridical categories on postcolonial struggles in a fashion that re-enacts the cultural violence of colonisation” (Coombe 1998: 232).

Therefore, this suggests that a discussion of whether IP law can adequately protect IKS cannot be properly executed without addressing the wider concerns of Indigenous Peoples. These issues related to the IKS are closely linked to the community and biodiversity. This further suggests that the solutions to the problems of indigenous knowledge do not necessarily lie within the confines of the law but is part of a broader project to further the cause of the Indigenous Peoples of the world.

7.4 INDIGENOUS KNOWLEDGE DATABASES AS CENTRES OF STRUGGLE

The idea of struggle is quite evident in the key proposal for the creation of databases to collect and document indigenous knowledge. Databases record and store specific elements of indigenous knowledge found in different locations around the world. This may be done at the local, national and international level. Similarly, Drahos has also

suggested the creation of a global bio-prospecting society. At least two purposes of databases can be identified:

- i. To protect indigenous knowledge by recording it and demonstrating its existence to the wider world. Those who try to use it without authority or make claims can be exposed in the light of available and visible data in the databases.
- ii. To enable the analysis of available knowledge so that the useful elements can be deciphered and applied for developmental purposes.

As Agrawal (2002) demonstrates, the idea of creating databases has been widely supported by developmental organisations such as the World Bank, UNESCO and UNDP. Indeed, it appears that idea of creating databases has been taken up in various parts of the World including in India, the Philippines and parts of Latin America.¹⁹⁹ The concept of a database or genebank is an illustration of the *ex situ* conservation of indigenous knowledge. The recording of knowledge is seen as a means of demonstrating the relevance of IKS as an integral part of the global knowledge systems. The underlying idea is that at the point that IKS can be seen as useful for development purposes, it can be better appreciated and therefore the interests of the Indigenous Peoples that possess such knowledge will be better protected (Agrawal 2002). Thus at the foundation of this strategy is utility of knowledge as the justification for protection.

¹⁹⁹ A genebank has also been established in Zimbabwe to perform a similar task of collecting indigenous knowledge and samples of germplasm of medicinal plants.

While advocates for the creation of databases view this as the way to build the foundations for protecting the interests of Indigenous Peoples, there are internal contradictions that demonstrate and perpetuate the struggles between knowledge systems. There are certain key questions that have to be confronted: What elements of IMK are selected and documented in the database? Who selects the elements of IMK? What criteria are used for purposes of selecting the elements that are placed in the database? Finally, what are the implications of this selection process on IMK systems as a body of knowledge?

The creation of the database entails the separation of certain aspects of IMK from the rest of the elements that make up the system. If the idea of utility and development is the key, then only those elements of IMK deemed to be useful for development are collected and placed in the database. This has the effect of ignoring other aspects of IMK such as practices, beliefs and rituals within which the "useful" aspects of IMK are traditionally located. Agrawal describes this process of selection and separation as "scientisation" of indigenous knowledge (ibid. at 291). The separation entails that the aspects of indigenous knowledge that are not useful have less claims for protection and can be left vulnerable outside the "protective" databases.

Crucially, the selection and separation also involves the determination of whether the knowledge is valid. The utility and validity of knowledge are therefore tested according to scientific standards. Agrawal states that "The scientific criteria are integral to any particularised statement about indigenous practices being considered knowledge" (ibid. at

290) Science therefore emerges as the powerful medium for the judgement of whether IMK qualifies to be knowledge for purposes of utility, development and protection. It involves the application of standards developed for the determination of the validity of knowledge within the system of WSK. In that scheme, IMK is more useful if it can be shown to work in other different contexts. The contextual significance of knowledge is therefore considered as a weakness if the knowledge can only operate within a particular environment. This might appear to demonstrate an effort to remodel indigenous knowledge in the image of science and therefore confirming the view that on its own, IMK has no valid existence.

"Scientisation" becomes the basis on which the validity and legitimacy of indigenous knowledge and practices can be established and causes a division within the IMK because only the elements that are useful are deemed worthy of protection while the rest are left in the margins. According to Agrawal, "Use value in combination with scientific validation invokes the power of protection" (2002: 202). This may have a negative impact on the integrity and unity of the IMK systems and could potentially exclude the characteristics that make it indigenous. Chavunduka has also warned about the practice of trying to concentrate on herbal medicine as the only "useful" and potentially valid aspect of indigenous medicine when in fact it is practiced within a set of norms, rituals and spiritual practices (1994). The danger is that this separation removes elements of knowledge from the social contexts that may be necessary for the positive application of the practices or knowledge. Indeed, "the creation of databases discriminates against all those forms of indigenous knowledge for which no practical use can be perceived..."

(Agrawal 2002: 293). The effect is to negatively affect the diversity of knowledge, which typically characterises IKS.

Another key issue in this context is that the creation of databases or similar strategies attempts to recast IMK in the image of WSK. These strategies are based on assumptions that IMK is not valid and legitimate unless it has been separated and tested according to the criteria of science. Ultimately, the attempt to drive IMK from the periphery to the centre submits to the power and dominance of science yet in the very process, the integrity of IMK as a body of knowledge is diminished and undermined. There are important consequences of scientising IMK in terms of power relations of the main actors in the process. The creation of databases on its own does not change the marginal status of the Indigenous Peoples *vis a vis* the researchers and commercial entities with whom they relate. One has to look further and assess to what extent the conditions of the Indigenous Peoples themselves are changed in material ways.

The process of creating the database entrenches the power of those who separate, validate and document indigenous knowledge to meet the requirements of the WSK system. Once it is in that domain, those with power and control can assert their influence on how it is defined, produced and protected. The Indigenous Peoples become the outsiders whose contributions end only at the point at which they deliver the knowledge and plant samples. Agrawal vividly points out that,

"In the absence of real efforts to change the relations of power that define interactions between different social groups seen to possess valuable knowledge can be studied and once their knowledge is in the public domain it can be refined and privatised through the existing system of patents and intellectual property rights." (Agarwal 2002: 294).

The Indigenous Peoples are located in conditions of poverty and powerlessness and therefore lack the means to resist appropriation. In some cases such appropriation may be legitimised through contracts which represent unequal exchanges simply because the indigenous groups will have negotiated from a position of weakness socially, economically and politically. The question of power is therefore at the centre of the struggles so that those who have the desired knowledge ought to have the necessary power to improve their position and enhance their claims for the protection of their interests. A similar argument is supported by Veitayaki who points out that the efforts to document and record indigenous knowledge, must be done together with the efforts to address the issue of rights pertaining to such knowledge when it is used for research and commercial interests (Veitayaki 2002: 398)

In a nutshell, the creation of databases is a key illustration of the latent struggles between knowledge systems and how the processes can have a negative effect on the nature of IMK systems. Science is continually deployed to test the status of IMK as knowledge for purposes of development and protection. The question to be asked is whether it is necessary at all to invoke scientific criteria in measuring the validity and legitimacy of IMK systems. It is argued in this study, that the primary goal must be to accept the

validity and legitimacy of IMK systems without reference to the WSK. To do it otherwise subjects IMK to the strict and potentially narrow confines of the WSK system and therefore does nothing to preserve IMK systems as a body other than to expand the boundaries of the WSK systems. The idea of power is also vital since the power relations between the different social actors determine the control and distribution of benefits from the scientisation of IMK. The institutions and practices attached to different forms of knowledge are vital in this respect. It is necessary to avoid over-emphasis of databases as the means of protection and to focus on the other key aspects such as power relations and questioning science itself. The validity and legitimacy of IMK ought to be accepted as matter of principle and on criteria that do not necessarily command it to conform to the dominant WSK systems. Once the process of validating and legitimating is undertaken through the lens of the dominant WSK system, it negates the broader basis upon which claims for protection are being made.

7.5 CONCLUSION

On a balance of factors this chapter has demonstrated the limitations of the present regime of IP law as a protection mechanism for IKS or indeed the patent system for IMK. It confirms Weidlich's (2003) prediction that a legalistic approach to the issues of indigenous knowledge is inadequate and inappropriate. Indeed, there seems to be a general consensus among scholars and researchers that IP law in its current form is inadequate for the protection of IKS. As Mugabe (1998) points out generally conventional IP law does not cover the knowledge of the indigenous communities. In

particular, there are technical and operational difficulties of using the patent system to protect IMK systems. To the extent that it is incompatible the attempt to spread a blanket application of IP law disregards the plurality and diversity of knowledge systems with different characteristics, values and incentives. However, it is quite possible that there could be some elements of IMK that are compatible with the requirements of patent rights when they are repackaged. Indeed when elements of IMK are processed and repackaged into the western scientific model they are transformed into subject matter bearing characteristics that are required for patent protection. Despite these possibilities there is still a risk that such protection may only be partial in that not all IMK that needs protection will be covered. The result is that it might give a potentially misleading impression that the patent system works whereas most IMK will remain exposed to exploitation. There also remain difficult operational impediments arising from the expense and complexity of the patent system with the result that the protection will only be available on paper without much impact in practice as the Indigenous Peoples will not have access to it. The limitations of this legalistic assessment entail that the cultural or anthropological approaches ought to be harnessed in order to fully understand and appreciate the nature and workings of the IKS generally. This might assist by providing more comprehensive solutions to the current problems.

CHAPTER 8

THE INDIGENOUS MEDICAL KNOWLEDGE SYSTEM IN ZIMBABWE

"Zimbabwe has a rich bio-diversity and wealth of indigenous knowledge on plant life"²⁰⁰

8.1 INTRODUCTION

This chapter aims to present the main findings from the field research carried out in Zimbabwe²⁰¹. At the outset it is important to point out that the researcher entered the field with a history that locates him within the indigenous context of Zimbabwe. The researcher lived among the indigenous communities in *Mashonaland* East province in Zimbabwe. As a result of this circumstance, the researcher entered the communities as both an insider and outsider. He was an insider in that he had prior experience and knowledge of the lifestyle and traditions of the indigenous communities and had indeed grown up using indigenous medicine. At the same time his physical location at the time of the research within a United Kingdom university and his experience of the western education system placed him outside the traditional community in some respects. One key aspect for the purpose of this study is that the research experience during the months when research was conducted cannot be totally isolated from the researcher's own lived experience growing up in the indigenous communities. He did not enter as a first time observer. From an indigenist perspective, it is necessary to provide some background of

²⁰⁰ Chigodo T. "Traditional Healers Have Regained Repute" African Church Information Service 14 October 2003

the researcher's personal experiences and this account is contained in *Appendix 3* of this study.

8.2 INDIGENOUS KNOWLEDGE SYSTEMS IN ZIMBABWE

In similar pattern to sub-Saharan African countries, Zimbabwe has a vast store of Indigenous Knowledge Systems (IKS)²⁰². There is rich mix of art, oral literature, agricultural and medical knowledge that has been generated and transmitted through generations. Indeed before the colonisation of the country the local knowledge systems sustained the local population in many respects. The people had mastered the art of iron-smelting, mining techniques, hunting methods, agricultural techniques including plant and animal breeding, general art and craft as well as oral literature, song and dance (Chavunduka 1994). A great part of this is still available and used by the traditional communities normally residing in the rural areas of Zimbabwe.

The field research aimed at understanding in more detail how knowledge is held, accessed, transmitted, exchanged and valued within and across the indigenous communities in Zimbabwe. This part of the chapter focuses on these findings and the various aspects relating to IMK systems in Zimbabwe including their origins and characteristics as well as the challenges and problems that they are facing in the current

²⁰¹ The methodological aspects of the research have been covered in more Chapter 3. The information was collected through the interviews, observation and review of documents collected during the research. The full list of interviewees and dates of interview is contained in *Appendix 4* of this study.

²⁰² According to Dr Ebrahim Samba, the World Health Organisation Regional Director for Africa, "for centuries traditional medicine played a crucial role in combating multiple and complex conditions affecting Africans, and ... because of its popularity, accessibility and affordability, more than 80 per cent of the

environment²⁰³. It also reveals the traditional presence of internal protection mechanisms of IMK systems in indigenous communities and assesses their strengths and weaknesses in the present circumstances.

8.3 ORIGINS AND NATURE OF IMK SYSTEMS IN ZIMBABWE

Indigenous Knowledge Systems (IKS) in Zimbabwe constitute a major part of the local people's way of life. One of the most significant forms of indigenous knowledge is the rich medical knowledge. Indigenous medicine is a basic part of the communities' way of life and heritage and has been developed over many years (Gelfand et al. 1983). It has been passed from one generation to another from time immemorial. Apart from the search for food, security and development Indigenous Peoples needed to survive the scourge of disease and illness. Survival required protection against the problems that could affect their physical and mental being. Innovation and development of knowledge was therefore a matter of survival. In close interaction with the nature they developed means to deal with illness and cure disease²⁰⁴.

They explored nature in order to seek solutions to the problems affecting their day to day lives. As a result they discovered and developed medicines to cure ailments that affected them and their domestic animals. They devised means to hunt efficiently and to grow

people in the region continued to rely on it for their health care needs (sic.)" Quoted by Chigodo in "Traditional Healers have regained Repute" in African Church Information Service 14 October 2003.

²⁰³ One key study in recent times was carried out around the same time as this study by Chloe Froemmer a Canadian anthropology student who has also produced interesting findings in her work entitled The Cultural Right to Practice Traditional Medicinal Knowledge in Zimbabwe which can be found at the following site: <http://www.culturalrights.com/docs/righttoculturalpractice.pdf> (last visited 12/07/04)

crops productively from year to year. For example, in order to endure the hardships and hunger during hunting expeditions, they knew the plants and roots to chew to fend off appetite²⁰⁵. The people use the cactus plant whose parts they eat before undertaking long expeditions. They can go for days without eating and this helps them to carry out their tasks without fear of going hungry. It also helps them in weight management and keeps them slim and healthy²⁰⁶. They also know the plants, roots or chemicals that are effective as poison which they smear on the arrows in order to effectively capture their prey. If a snake bites a person they have knowledge of the herbs that could provide the antidote for the snake poison²⁰⁷. In a nutshell indigenous knowledge systems developed in response to the needs of the communities and therefore differ from place to place although commonalities abound. The same plant may have different medicinal use within and across communities. Above all, the knowledge systems are an integral part of the Indigenous Peoples' livelihood and they grow from one generation to the next as people learn new uses²⁰⁸.

IMK illustrates the core world-views of the Indigenous Peoples. Knowledge about the natural resources that are employed in indigenous medicine is in essence knowledge about the universe. According to the local philosophy, knowledge is a gift from the Superior Being who is the overall authority and the task of the living is to search and find it when they require assistance. The first prescriber of knowledge is Nature and in their

²⁰⁴ Interview with Mbuya Makwinja in Gandamasungu, Wedza She stated "We found food, medicine and shelter from the plants, animals, stones and everything around us. God created everything for a purpose"

²⁰⁵ Interview with Sekuru Madzvimbo in Munyoro village, Chikomba

²⁰⁶ Interview with Professor Chavunduka in Harare

²⁰⁷ Interview with Sekuru Chikomo in Njanja, Chikomba "There are people with specialist knowledge of the medicines to neutralise the poison. So when a person is bitten by a snake, it is important to take note of the type of snake because there are different types of medicines depending with the type of snake."

world-view Nature is God who is known as *Mwari* or *Musikavanhu* - the creator²⁰⁹. *Mwari* is believed to be the creator of knowledge, which is passed on to living individuals through the ancestral spirits. The medicines were also developed through experimentation (trial and error) and systematic observations over a long period of time. IMK illustrate the close connection between human beings and the natural environment.

IMK thus has a unique cultural element that cannot be separated from the whole. Indigenous peoples believe that when a person dies, that is not the end of his life but merely a passage from one universe to another. In the spiritual universe he will continue to communicate with those that have remained and share the knowledge that the earth and spiritual world have to offer²¹⁰. Knowledge is not an abstract entity separable from the rest but is an integral part of the universe. Herbal knowledge, which mostly attracts the attention of scientists is only a component of a holistic system of medical knowledge in which the spiritual elements are a key component. In addition, IMK is not an entity that can be prised away from the entire social systems within which it is developed, held and transferred across people and generations. In defining IMK one must pay due regard to this cultural aspect which is a fundamental part of it and one of the major rationale for its protection and conservation. While most indigenous medicines are derived from plant leaves, roots, flowers, barks and stems others are extracted from animals, fish and birds²¹¹. In fact each part of the environment has its use in developing medicines.

²⁰⁸ Interview with Professor Gordon Chavunduka in Harare.

²⁰⁹ Interview with Sekuru Sibanda at the ZINATHA office in Harare

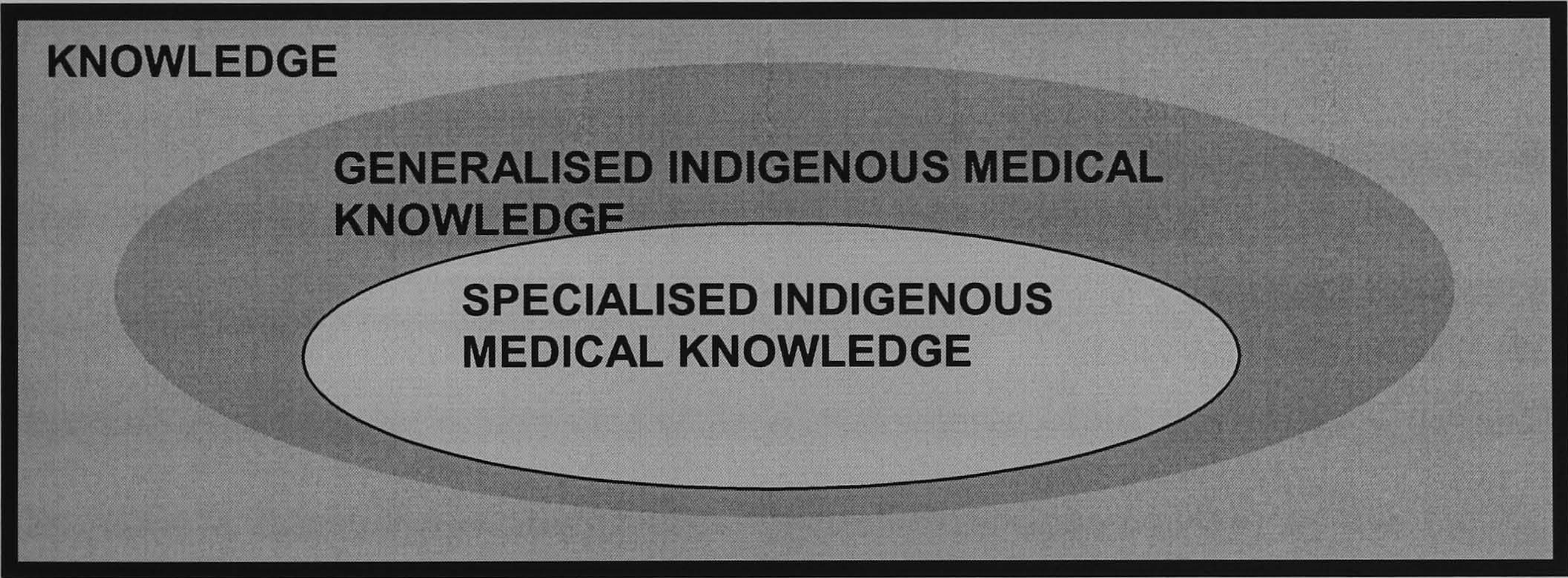
²¹⁰ Interview with Ambuya Chikomo in Njanja, Chikomba

²¹¹ Interview Sekuru Kwenda in Chikomba

8.4 TYPES OF IMK IN ZIMBABWE

IMK may be divided into two categories according to the manner in which knowledge is held within communities²¹². The two categories are generalised medical knowledge and specialised medical knowledge. They are distinguished by the manner in which they are held across the communities, the general type being the knowledge that is commonly held across the community while the special version is the knowledge that is held by a few select individuals or groups in the communities. The specialists are called *N'anga*. Diagrammatically the relationship between the two types of knowledge can be represented as follows:

FIGURE 1



8.4.1 GENERALISED MEDICAL KNOWLEDGE

²¹² Interview with Professor Chavunduka in Harare

This is knowledge that is generally known among members of a community²¹³. It is common knowledge that any member of the community can apply without expert assistance. Such knowledge usually relates to common ailments or some animal diseases and would normally be required for everyday use. Common ailments such as colds, stomach pains, headaches, fatigue, coughs, wounds etc could be cured using such general knowledge. This type of knowledge is available freely to anyone in the community and it is normally simple to apply. The reason for the generalisation is that it has been spread across the community over a long period of time. It is knowledge that may have been specially held by few individuals at some point but has become common knowledge through use and communication to others through oral tradition and observation. Through use and exposure it has come to be known by members of the community who in turn have passed it on to others. Thus a grandmother who knows the plant used for treating stomach pains can point it out to her granddaughter in everyday communication.

8.4.2 SPECIALISED MEDICAL KNOWLEDGE

This type of knowledge is restricted to fewer individuals within and across communities. This class is dominated by Indigenous Medical Practitioners (IMP) known locally as *n'anga*²¹⁴. IMPs possess a vast amount of empirical and spiritual medical knowledge²¹⁵. Their knowledge goes beyond the general knowledge in the first category and they normally deal with the complicated and more difficult cases of physical and mental ailments. The holders of this knowledge are perceived to be the living individuals through

²¹³ Interview with Ambuya Makwinja in Wedza and Sekuru Jambaya in Harare

²¹⁴ Interview with Professor Chavunduka in Harare

whom the spirits communicate with the living communities. As consultants the people from within and other communities consult them for any difficulties that arise and they normally apply their knowledge in return for value. Payment can take various forms and it is charged at his/her discretion. The amount charged varies according to the reputation, expertise and experience of the healer²¹⁶. Although the current prices are high, traditional payment could be nominal and was meant to be an expression of gratitude to the healer and the ancestors.

Traditionally, payment is made after the administration of the medicine and in other cases some IMPs only ask for payment if their medicine is successful. IMPs do not only perform medical duties using herbal treatment. They are also religious and cultural leaders and perform political, counselling, legal and advisory duties within the community. The IMP is a spiritual and religious leader as well as a medical consultant due to the close connection between the medicine and religion in the indigenous communities²¹⁷. There was normally one or two holders of specialist knowledge in the community. It is believed that if one's ancestor was a healer, that knowledge could be passed on to him by spiritual means even long after the ancestors died.

8.5 DISTRIBUTION OF IMK IN ZIMBABWE

²¹⁵ Interview with Professor Chavhunduka and Sekuru Sibanda

²¹⁶ Interview with Ambuya Makwinja

²¹⁷ Interview with Mr Marufu in Nharira. He stated that "*N'angas* and *Vadzimu* are the custodians of culture as they link the spiritual and living worlds. Through them we communicate with the ancestors and they guide the community in times of need."

As indicated earlier in this chapter generalised medical knowledge is held by members across and within communities while specialised medical knowledge is held by a select group of individuals who can essentially be called experts. While there is a communal aspect to generalised knowledge, specific individuals or families act as private custodians of specialised knowledge. They use it to help patients and gain benefits from it through the payments they receive. In an interview one respondent indicated that,

“These ideas that everything among Africans was communal have roots in the colonial system. Colonialism wanted to justify placing us in communal lands and to use resources communally. It ignored that we had our own systems of rights and title to things and it forced us to accept that everything, especially land, was communal. And now they are saying the same about our knowledge ...²¹⁸”

The holders of IMK believe that the idea of communalism is meant to suggest that the knowledge belongs to everyone and there is no identifiable beneficiary²¹⁹. While it is true that some knowledge is generalised across communities, it is equally true that some individuals, clans and families have received and created their own knowledge and they have held it as their own resource over a period of time. It is possible to identify certain pieces of knowledge as belonging to a particular family line or clan lineage. Simultaneously, the different individuals and clans may hold the same knowledge in different parts of the country. There exists a system of rights, titles to things and obligations in indigenous communities. Although this network of rules and entitlements

²¹⁸ Interview with Sekuru Sibanda

²¹⁹ Interviews with villagers in Gandamasungu, Wedza.

is not clearly visible through the lens of the formal systems, it certainly exists among the communities.

One of the causes of the blanket tag of “communalism” for everything among the Indigenous Peoples is the misinterpretation of traditional practices by non-indigenous visitors.²²⁰ One tradition was that an individual could use another’s thing as long as the user abided by the rules of tradition. In the local *Shona* language there is a saying that “*Mweni haapedzi dura*” which means that a visitor will not exhaust your food reserves²²¹. If a hungry stranger were to pass by your field of crops he could enter and take for example a water-melon to feed himself when the owner of the field is unavailable to ask for permission. In accordance with tradition, all he had to do was to consume the water-melon in the field and leave the remains on a clear part of the field. Upon seeing the remains, the owner of the crop would know that someone had helped himself and would be pleased to have assisted someone in need. Indeed if another stranger were to enter the same field and discover the remains, he would move on to the next in order to avoid exhausting a single person's crop. The rule is that the stranger cannot take the food and eat it away from the field. If he were to do that it would be considered as theft. Unfortunately the non-indigenous people saw this and interpreted that in that scenario the crop was communally owned yet it was a rule that was to be interpreted within the context of practices and ethics in the indigenous community. It did

²²⁰ Interview with Sekuru Sibanda

²²¹ Interview with Sekuru Chikomo

not mean that the crop was communally owned²²². Indeed a system of entitlement to things existed in indigenous communities.

Another respondent gave an example of establishing entitlement to things found in the wild²²³. If someone discovered a beehive in a forest, he could assert his rights to the honey by cutting a branch of the tree next to the beehive. The next person who came across the same beehive and saw the branch that had been cut would realise that someone else had already discovered it before him and asserted title to it. A person who is not familiar with such rules would be unable to appreciate the system of rights and obligations that exist in indigenous communities and might end up imposing other rules and systems that run counter to the local systems. Indeed that seems to exemplify what took place on the encounter between the indigenous and non-indigenous settlers who brought in new systems and failed to integrate the existing ones. As far as knowledge is concerned respondents were keen to emphasise that too much emphasis has been placed on the existence of a communal system within the indigenous communities, a situation that led to the belief that the relationship between the indigenous communities and resources was necessarily communal. There were systems in place that recognised rights of individuals or groups and their obligations to the community.

8.6 ACQUISITION, TRANSFER AND TRANSMISSION OF IMK

²²² Indeed Sekuru Sibanda was very keen to show that private rights to things were always recognised in indigenous society.

²²³ Interview with Ambuya Jakwara

Medical knowledge is acquired and distributed in a number of ways. The method by which knowledge is transmitted from one generation to another is also reflective of the bond between medicine and religion. In addition, there are a number of ways by which a person becomes an IMP within the community and they will be discussed concurrently in this section. The indigenous Zimbabweans believe that knowledge comes from one source, the *Mwari*/God²²⁴. That knowledge is passed on to special men and women in the community for the sustenance of the community. There are special means through which that knowledge is generated and passed on from one person to another through generations. Research revealed that the most common ways through which knowledge is acquired are as follows:

- i. Oral tradition
- ii. Spiritual Endowment
- iii. *Njuzu* (Water Spirit)
- iv. Apprenticeship

8.6.1 ORAL TRADITION

This is the common method by which the general forms of medical knowledge are transmitted and distributed through the communities and from one generation to another.

²²⁴ According to Sekuru Matate, "The source of all that we have is *Mwari*. Knowledge can be traced right from the very beginning. It is a gift that we get from *Mwari* and in our tradition we acquire it through our ancestors. All people have special gifts and there are some among us with the gift of receiving knowledge. Like the hunter who brings game and sells it to us or the talented farmer who always reaps good harvests, those who have the gift of knowledge also receive rewards for using that knowledge. But we all know that at the end of the day, we owe what we have to *Mwari*. Nobody has all the gifts, so we share our individual gifts in different ways. The reality is, each of us can not survive without the other. The farmer needs the rainmaker, the farmer needs the hunter and the hunter also needs the farmer while the rainmaker needs food from the farmer and the hunter ... and so on and so on"

Villagers that were interviewed in the *Wedza* and *Chikomba* area indicated that general knowledge is passed on between people through general conversations and stories. Quite often while walking with one's elder she can point out certain herbs, animals indicating their use for one or other ailments. If a person is not feeling well and it is considered to be a common illness like a cough or cold, a member of the community who knows the treatment can simply pass on the information to her²²⁵. Indeed during the research a number of medicinal plants were pointed out to the researcher by the local people. The person who passes on this data does not charge a fee for giving the information. When elders tell oral stories to the children, they often indicate plants and animals that have medicinal properties for particular purposes. This is more common in the rural communities where the traditional way of life is still relatively intact. Therefore oral tradition plays an important part in the passage and transmission of knowledge from one generation to another. This is more suited to general forms of IMK that is normally freely available to most members of the community.

8.6.2 APPRENTICESHIP

Some people become IMPs through an apprenticeship programme whereby they get attached to an IMP for a long time to receive training²²⁶. During that time the apprentice learns about the medicinal plants, and other organisms which the IMP uses everyday. He

²²⁵ Professor Gundidza explained that he got interested in traditional medicine at an early age because his grandfather was a local IMP in his community. He would often be sent on errands to fetch particular plants and catch animals that were used in the treatment of illness. When he travelled with him he would often be shown useful medicinal substances and through that process got to know quite a lot of medicinal plants which he now uses in his laboratory tests in his research into indigenous medicine as a pharmacologist at the University of Zimbabwe. Students studying pharmacy at the university also do research in indigenous medicines and they get information from the local people in the areas of their research.

is often the errand boy who performs the chores prescribed by the IMP. He accompanies the IMP on his journeys and when he collects the medicinal plants and herbs he observes and takes the knowledge for future use. When he has learned enough he is allowed to go out and practice. Most of the IMP s who come through this process are mainly herbalists because their knowledge is about the uses of medicinal properties of plants and sometimes animals. They do not really perform the spiritual functions as they do not have the necessary spiritual endowment.

In order to become an apprentice, one has to earn the trust and confidence of the IMP. Normally, the apprentice is a younger relative of the IMP but those that show commitment and earn the IMP's confidence can come from outside the family or clan lines. By the end of the period, the apprentice will possess a vast amount of knowledge about plants, animals and other substances of medicinal value. He will be able to distinguish substances by use of different senses and will have knowledge of how to deal with disease. In a family the elderly holder of medical knowledge can choose anyone that he favours and pass on knowledge through this process from a tender age. By the time the young one grows he will be an expert in medicine and can start practising once the community rituals have been fulfilled. One account of how a person is chosen was given in the field²²⁷:

The process of choosing an apprentice was carefully decided. A practitioner would choose a young person within the family and put him through various tests. The criteria

²²⁶ Interviews with Sekuru Sibanda and Professor Chavunduka in Harare

²²⁷ Interview with Sekuru Jambaya in Harare

included humility, strong leadership qualities, strong character, courage and maturity. One test was to pick an individual and subject him to severe hardship/punishment. Or he would show him something fascinating or frightening. If the young man went on to report what had happened to his parents or friends he would normally be considered unsuitable due to weakness of character. One should be able to keep things to himself, no matter how good or bad. The test of endurance is a key one too. Depending on success at each stage, the IMP could then take the young member to the forest and show him different herbs and animals. Each time the sample would be reduced as the young member passed the tests. If ultimately the young member demonstrates that he is a suitable candidate he will be shown the correct herbs because the holder will have confidence in him and that he has the capacity to keep secrets and apply them well.

8.6.3 SPIRITUAL ENDOWMENT

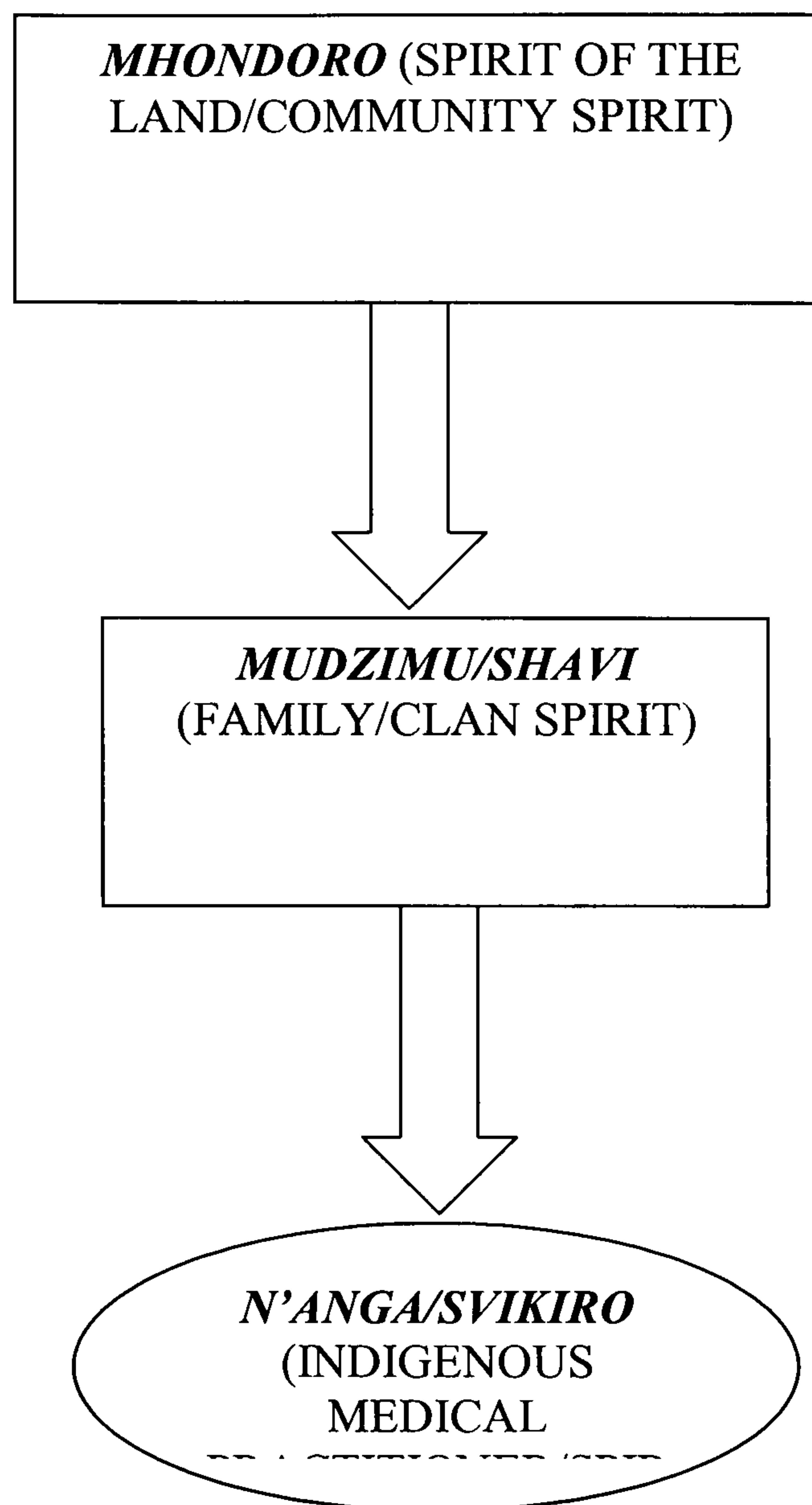
This is a key process in the IMK system that distinguishes it from the other types of knowledge. It is the crucial element that explains its uniqueness and its status as an independent and distinct body of knowledge²²⁸. Traditionally the majority of IMPs acquire their specialised knowledge through spiritual endowment²²⁹. Such IMPs are also the most revered and respected holders of IMK. It is believed that they are the connecting links between the spiritual and living worlds. They are able to get spiritual guidance about causes of illness individuals and also how that illness can be treated. It is believed that IMPs acquire knowledge through revelations from the spirits. According to

²²⁸ Interview with Dr Ndlovu in the Education department at the University of Zimbabwe, Harare

²²⁹ Interview with Mr Chikauo in Glen View Harare

information gathered spirits come in different forms and endowment can also come in various ways. It is important to understand the hierarchy of the spirits as understood in the traditional communities. This hierarchy transcends and connects the spiritual and living worlds. The spiritual hierarchy starts with the *Mhondoro*, *Mudzimu/Shavi* down to the living IMP. It can be represented by the following diagram:

FIGURE 2



In this figure, the *Mhondoro* is the highest ranking spirit because it is the overall community guardian followed by the *Mudzimu* which is essentially for individual families or clans and the *N'anga* or *Svikiro* are the living individuals who are endowed with the *Mhondoro* or *Mudzimu* spirit. The overall authority is *Mwari*.

8.6.3.1 *MHONDORO*

This is the chief spirit of the land. It is the spirit of the founder of the nation or a people. His duty is to protect the land and everyone else in the community. In times of great trouble, the *Mhondoro* is called upon for consultation and whatever needs to be done is performed collectively by the community²³⁰. The spirit of the *Mhondoro* resides in one of the members of the community and he or she is highly regarded in the community. It is believed that the *Mhondoro* can represent itself in the form of an animal such lions or species of snakes such as a python. When lions or snakes appear in an area where they are not normally seen, it is believed to be a sign of the *Mhondoro* spirit trying to send out a message. It could be that there is something that is happening in the community that has angered the spirits and things have to be rectified. Communities come together to perform rituals and the person in whom the *Mhondoro* spirits resides then communicates the message to the people and communities perform what they are expected to perform. This includes rainmaking ceremonies in times of severe drought or thanksgiving ceremonies in times of plenty. When a member of the nation commits a taboo, people came together to consult the individual who is possessed by the spirit of the *Mhondoro* in order to perform cleansing ceremonies. This is where the communal nature of the indigenous communities is evident because they owe allegiance to the same spirit and they believe that it is that spirit that is available to solve the problems including illness, disease, drought or other calamity that may affect the community as a whole.

²³⁰ Mr Munyoro of Chikomba explained that in instances where there are extreme problems affecting the whole community such as drought, tragedies people come together and perform rituals. The *Mhondoro* is consulted and the person in whom the *Mhondoro* resides reveals what needs to be done to cleanse the community and to assist the community in general.

8.6.3.2 *MUDZIMU/SHAVI*

This is the guiding spirit that is attached to a particular family or clan²³¹. It ranks next to the *Mhondoro* in the hierarchy. The *mudzimu* is usually the deceased grandparent of the person who is possessed by the spirit. That spirit therefore resides in the person in the family or clan and is often consulted to guide the family or clan. If the grandparent was an IMP during his living years, it is believed that the person through whom it reveals itself will be endowed with the knowledge of that ancestor. That way knowledge does not die with the person and will continue to run through the family or clan line. Thus when a patient consults the IMP he performs certain rituals and the *mudzimu* reveals the knowledge of what is the cause of the problem and how it can be resolved. The spirit can also reveal the source and location of the medicines for the particular problem²³².

Sometimes the spirit is called a *shavi* because it belongs to an outsider in respect of the family of the person in whom it settles. If that departed person had a special healing talent but his spirit cannot find a suitable individual within the family line it settles in another suitable person who is in another family or clan.

8.6.3.3 *N'ANGA/SPIRIT MEDIUM/INDIGENOUS MEDICAL PRACTITIONER*

²³¹ Interview with Mr Mangwiro of Wedza

²³² Mr Mhlanga, a teacher at Mahusekwa Secondary School narrated his experience when his family visited an IMP in a distant place called Chipinge, an area with renowned IMPs. They were virtually unknown in the area but they were astonished that when they arrived at the IMPs place he was already prepared to meet them, knew the cause of their trip and was able to narrate their family history. He even had specific details of the person who was ill. His story was echoed by other interviewees who indicated that some specially endowed IMPs are capable of doing this.

He or she is the living host of the spirit – either the *mhondoro* or the *mudzimu/shavi*. When consulted, the spirit helps him to reveal the response to the problems faced by the patient or family and how to treat them. He is the individual with the spiritual endowment from the *Mhondoro/Mudzimu/Shavi* and possesses the gift of healing and therefore is the specialist practitioner in the traditional society. The spirit is not only for medical expertise but can be for hunting, farming or other expertise. Therefore, a person possessed by the hunting spirit will become a expert hunter.

An individual can start practising when he is imbued with knowledge. The acquisition can be by spiritual endowment or through apprenticeship. The community plays a crucial role in the authentication of the IMP's practice. His duty is to serve the community.

8.6.3.4 POSSESSION BY A SPIRIT

As indicated in the preceding parts, the process of possession by a spirit is believed to transmit knowledge from the spirit to the living host. This normally takes place in childhood or early adulthood. The possession by a spirit is believed to reveal itself through a strange illness or unusual behaviour²³³. When it happens the family of the person consults a practising IMP to seek assistance. In modern days people may go to the hospital for help but when they realise that there is no progress they often consult an IMP

²³³ Interview with Mbuya Makwinja in Gandamasungu, Wedza and generally discussions with communities in Wedza and Chikomba. A person can start talking in a strange language or a very young child can start behaving in a very adult manner either in the way she speaks or behaves. At other times the spirit can

for spiritual guidance. The belief is that illness that is caused by the spirits in this way cannot be cured by modern medical techniques²³⁴. In the case where the illness is caused by the spirit trying to reveal itself, the IMP will identify it and inform the family of the rituals that need to be done to initiate the person into his trade for which he is called.

Sometimes a person gets revelation of medicines through recurring dreams. The process is known in indigenous parlance as *Kurotswa*, which literally means that one has been made to dream.²³⁵ It implies that the spirits are communicating to an individual through dreams. This is a process of spiritual revelation through special dreams. These are special dreams that are considered to be different from the usual dreams common to every other person. In this process one is in communication with the spirits²³⁶. In a revelation, one can be shown the type of herb for a particular ailment, its location, and the preparation guidelines for particular illnesses. When he continually sees visions of medicines and locations then it is possible that a spirit is trying to reveal some knowledge to him. The IMP helps the family with the rituals and the possessed man begins to communicate with the spirit through which the knowledge of medicines is revealed. The rituals involve the family and the community at large. They gather and brew traditional beer, use traditional instruments to sing and dance all night. They perform the necessary rituals with the guidance of the IMP and when the spirit is accepted and the person can start practising. In that sense, the community plays a crucial role in the initiation of the IMP.

reveal itself when a person gets into a trance and begins to speak in the voice and manner of the deceased ancestor.

²³⁴ Interview with Dr Ndlovu and Professor Chavunduka in Harare. Communities visited in Chikomba and Wedza also echoed the same sentiments.

²³⁵ Interviews with Ambuya Jakwara in Mufakose

8.6.3.5 ENDOWMENT BY THE *NJUZU*/THE WATER SPIRIT

The other but rare way in which a person acquires knowledge and skills to practice indigenous medicine is through the water spirit (*Njuzu*)²³⁷. As with possession by the spirit this is also not by choice. It was described that in cases where a person is to be taken by the *Njuzu* she can disappear mysteriously at sacred pools. This is known as "*kutorwa nenjuzu*" which means one has been called and taken by the water-spirit. Such places called *madziva anoyera* (sacred pools) never dry up even in times of severe drought. In the research area the river *Save* that cuts across the *Chikomba* and *Wedza* areas where research was done is known to have many such sacred water spots. It may be that a person is fishing, bathing or swimming in a sacred pool. The person can disappear for weeks or even months.

When the person disappears in such circumstances, the belief is that the family must not mourn but must consult a practising IMP with expertise in that area carry out special rituals and await the return of the person. It is believed that if the family mourns, it angers the water spirit and the person will die. If they do not mourn and carry out the required rituals the greater possibility is that if its not an accident, the person will return and become a respected holder of knowledge²³⁸. Eventually when the person returns he will

²³⁶ When one describes a common dreams it called "*kurota*" but when describes the special dream referred to in this case it called "*Kurotswa*" which means one has not just dreamt but has been visited by the spirits or *made to* dream by the spirits.

²³⁷ Interviews with Sekuru Sibanda and Sekuru Jambaya in Harare. Also echoed in interviews in the villages along the Save Valley in Wedza and Chikomba.

²³⁸ Interview with Mbuya Makwinja in Gandamasungu, Wedza.

hold very special knowledge of medicine and healing. Upon return special traditional rituals are performed by the community after which the person will start practising medicine. Such IMPs are believed to be experts in their fields of medical knowledge (known as *godobori*) and they are highly regarded by their peers and the communities. To be called by the *njuzu* is considered to be very special and that person will command a lot of respect.

8.6.4 EXCHANGE

IMK was also transferred through exchange between IMPs. In the old days IMPs would gather for conferences at least once a year. At such conferences they would discuss about their practice and perform rituals²³⁹. It was an occasion to thank the ancestors and to share experiences. These were also occasions when new IMPs would be introduced to others from different regions and others were initiated during the ceremonies. If there were severe problems in the land, IMPs would perform rituals that were necessary to cleanse the land. If all was well, they would also hold thanksgiving ceremonies. The rules and ethics of the practice were also discussed and shared among the IMPs and errant practitioners were disciplined²⁴⁰. In addition at those occasions IMPs would exchange knowledge and materials.

Exchange was normally on the terms that each information provider would also get something in return. Thus in reality this was exchange for reciprocal value. IMPs

²³⁹ Interview with Ambuya Jakwara and Prof Chavhunduka

²⁴⁰ Disciplinary measures included punishment by being exiled from the family/clan or community

depended on each other to extend their knowledge. Sometimes the medicinal plants were not accessible to other IMPs living in other regions. It was at those occasions that they were able to access the resources from their peers. The system of exchange of knowledge was not only limited to those occasions because whenever an IMP sought new knowledge, they could travel to other IMPs with greater expertise to learn from them while also providing other information or resources in return.

8.7 NATURE OF WORK AND KNOWLEDGE

IMK consists of ideas about the cause of disease and its treatment. Indigenous medicine adopts a holistic approach to healing by taking into account not just the physical aspects but also the mental and spiritual aspects²⁴¹. The IMP performs diagnostic and treatment methods as part of the healing process although they differ from those applied in modern medicine. There is a belief that for each human ailment there is a plant or animal that possesses an element that neutralises its effect. As one respondent put it, “all things are one”²⁴² to show that everything is interconnected. This means that for every problem there is a solution in another thus showing the interdependence that is inherent in nature.

They use plants, herbs, and body parts of animals or birds. They can apply single or compounded plant substances and the mixture is often in liquid or powder form. The

²⁴¹ Interview with Professor Chavunduka

²⁴² Interview with Sekuru Sibanda. He also stated by way of example that, “This food that we are eating comes from the plants and the plants come from the soil. My ancestor was buried in that soil and he has enriched it to enable this plant to grow. One day I too will die and when I am buried there I will nourish the soil. The plants that come out will feed the animals and one day when you hunt, you shall catch that animal and you too will find food.”

roots, leaves, fruits, flowers, seeds and bark can be ground into powder and mixed with water to produce a liquid for oral treatment or they can be smeared onto wounds. They can also be burned and the smoke is inhaled as part of the treatment regime. Sometimes the medicine is mixed with water and used for washing while body incisions (*nyora*) can be made on the skin and the medicine is rubbed into the body. The quantity of the medicine is usually estimated although there are cases where overdose can take place or some substances can be toxic. Although with experience they are able to tell the stages when a plant is toxic sometimes they make errors this causes fatalities²⁴³.

The basic belief is that disease is largely caused by external elements²⁴⁴. Disease and misfortune have social or cultural foundations. The *mudzimu* is supposed to protect the family and individuals but if it is angry it ceases to protect and opens the way for disease and misfortune. It leaves people vulnerable to attack by disease agents. Everyone believes that they are protected by their *mudzimu* and one only gets ill when the *mudzimu* is angry and deserts them. IMPS know that there are microbial agents such as bacteria and other small organisms that cause disease but they look beyond the organism itself and question why it had to affect him and not the next person²⁴⁵. Indeed if an accident occurs, it is not just a consequence of negligence but they ask why he was negligent²⁴⁶. Consequently, the Indigenous Peoples believe that the ancestors must be pleased so that they can protect them from disease or misfortune. They also believe that it is only the IMP that can treat

²⁴³ Interview with Dr Ndlovu and Dr Mapfumo

²⁴⁴ Interview with Mr Murombo in Chikomba

²⁴⁵ Interviews with Professor Gundidza and Professor Chavunduka

²⁴⁶ Mbuya Chikomo pointed out that “We believe that there are good and bad spirits. Sometimes the bad spirits lead us astray and cause misfortune. They cause us to do things that we would not usually do and when misfortune occurs, we also try to ask the *n’anga* to find out why it had to happen and how we can

such problems and hence their resort to the traditional medical system even at a time when they seek medical help from the modern hospital²⁴⁷. It is also notable that this knowledge system also incorporates measures for behavioural control in society that is important for social control and stability in the community.

IMK is a vast area that includes many fields and a practitioner can specialise in a specific area²⁴⁸. Some people specialise in determining the cause of death and foretelling what the future holds. Whenever a person dies in the family, a visit to an IMP for a process of *Gata* is undertaken to find out what has caused the death. If there are certain problems, they will be told what to do in order to avoid a similar misfortune. There are also IMPs who specialise in the treatment and management of certain problems such as epilepsy while others specialise in gynaecological problems. Others specialise in masculine problems such as erectile dysfunction, increasing virility and treatment of venereal diseases²⁴⁹. Some are specialists in exorcising evil spirits that may be responsible for mental illness and other help to address problems of infertility. Others work exclusively in the field of treating psychological disorders and psychiatric disturbances. Some medicine is preventive. For example the *Chifumuro* is a medicinal plant that is used on

prevent it in future. Of course someone can be negligent, but we ask why him and not someone else? So we try to exorcise those bad spirits”

²⁴⁷ According to Professor Chavunduka “It is not uncommon for relatives of patients to sneak in with traditional medicines from an IMP into the hospital” In a visit to Parirenyatwa Hospital, the largest hospital in Harare, the researcher discussed with relatives of patients during the visiting hours and discovered that whenever they felt that their patient had stayed too long in hospital, they would try to use traditional herbs. Although it is not permitted by the authorities, they always find different ways of smuggling in the medicines”

²⁴⁸ Interview with Mr Kandiyero at the ZINATHA office in Harare

²⁴⁹ The researcher observed that there is a very popular medicine called *Vuka-vuka* which men use as an aphrodisiac.

babies to keep them free of disease such as pneumonia and diarrhoea. The representative body of IMPs the ZINATHA keeps a register, which shows each member's speciality²⁵⁰.

As alluded to above, IMK includes both herbal and spiritual elements. While the herbal side illustrates the empirical medical knowledge, the spiritual element shows a more subjective element that encompasses the rituals and social techniques of African healing. It is the latter element that is beyond the purview of Western medical science and often leads to a rejection of IMK as a legitimate body of knowledge. IMK takes a holistic approach that examines problems in their entirety and for this reason it is broader and subtler than technical herbal expertise which is only a part of it. Other than the herbal expertise superstitions, taboos and fears of the unknown are necessary parts of the IMK system and useful for a full understanding of the structures that holds it together. The practice of the IMP is sanctioned by the community, which participates in his initiation and entry ceremony. The communal nature of these activities means that there are duties that the IMP owes to the community and similarly the community owes him for the knowledge and practice of medicine. It is a symbiotic relationship in which one's existence depends on that of the other. The community pays to get assistance from the IMP but the IMP must not abuse his authority and he needs the community to begin and continue his practice.

8.8 PROTECTION OF IMK IN INDIGENOUS COMMUNITIES

²⁵⁰ A register was inspected at the ZINATHA office in Harare.

As with Knowledge in many communities, IMK has always been seen as a valuable resource within indigenous communities²⁵¹. As such they have developed means by which knowledge is protected and preserved against loss, exploitation or extinction. A structure of rules, values and sanctions meant for protection of medical knowledge can be discerned in indigenous communities. The protection is also for the benefit of the individuals or families who hold special knowledge exclusively within their lines. According to Professor Chavunduka it is possible to trace the source of knowledge and within communities people know how and whom to credit for certain aspects of knowledge. These mechanisms spread across social, religious, economic and political realms. Socially and politically, IMPs have always been held in high esteem and occupied important positions in the community. They often lived close to the chief or political leader protecting and giving advice to him. Hence by virtue of their expertise and power they were highly respected and regarded as necessary for the survival of the community. Foreigners were unable to see them unless they passed through an elaborate process and passed the vetting procedures. As such it was difficult to extract knowledge from them. Economically they enjoyed a privileged status and did not have to sell their knowledge cheaply in order to survive. The social fabric was well knit to protect them and the wealth of knowledge that they held. The mechanisms for knowledge protection include:

- i. Secrecy and the Taboo system
- ii. Evasion/Refusal
- iii. Restrictive System of Knowledge Transmission
- iv. Internal Disciplinary Measures

²⁵¹ Interview with Professor Chavunduka in Harare

v. Preservation of Biological Diversity

These mechanisms are explained in the following section.

8.8.1 SECRECY/CONFIDENTIALITY AND THE TABOO SYSTEM

Secrecy has been the most common method by which knowledge was protected in indigenous communities²⁵². Knowledge is kept secret within families and clans or whichever line by which knowledge was passed. Historically there was both an economic and cultural basis for keeping knowledge secret. Economically, the knowledge fetched more value when it was scarce in a community. There were therefore particular practitioners who were known to be specialists in certain areas and all patients would be referred to them for treatment. Specialist knowledge is not a free resource because the holders of knowledge charge fees for the services they render and the fees depend on various factors including the reputation of the healer, the type of illness, complexity of the treatment etc. All these factors provided important incentives to keep the knowledge secret by protecting it from external interference or extraction. In addition there was the religious rationale which meant that holders of knowledge were not supposed to divulge it, as doing so would have a negative impact either on the knowledge or the community. In this scheme, secrecy was supported by the **Taboo** system. According to the taboo system, certain codes and rules had to be followed as failure to do so bring dire consequences. Thus information was supposed to be kept strictly within the prescribed lines. As long as the procedures were followed knowledge could be kept within a single line for a very long time. Some of the rules were that if knowledge was revealed without

following the right procedures the medicine might fail to work.. This is called “*Kufumura mushonga*”²⁵³. It is believed that it could bring misfortune on one's family

There were rules in communities that certain species of plants or certain portions of land were not to be cut or cleared. It is because they had their important roles in medical practice and they had to be preserved. Their preservation was also important for the protection of knowledge from extinction because without the resource the knowledge was useless and so gradually it would disappear. Accordingly the taboos, superstitions and fears of the unknown were not senseless but they were important and deliberate means to preserve important knowledge and to regulate access to and use of resources and knowledge.

The success of the Secrecy and Taboo system relies heavily on the cultural and religious life of the people²⁵⁴. Indigenous people who strongly believe in the cultural aspects on which the taboo system is built are more likely to respect the secrecy rules. Those who do not believe in them are unlikely to do so with the result they could divulge and exploit the knowledge at will and without any apprehension about the consequences. That is why with all the external influences that have penetrated the cultural lives of the Indigenous Peoples the efficacy of secrecy is becoming doubtful²⁵⁵. The impact of western education, Christianity and adoption of attendant cultures has meant that some Indigenous Peoples

²⁵² Interview with Sekuru Chikomo and from discussions with villagers in *Chikomba* and *Wedza*

²⁵³ Interview with Sekuru Jambaya literally translated to mean carelessly and inappropriately revealing information.

²⁵⁴ Interview with Professor Gundidza

²⁵⁵ Interview with Mbuya Makwinja “Children of today have lost their respect for our culture and so they no longer keep the rules of the system. They are not afraid anymore and they do things that we could never think of doing long ago”

are now far removed from the traditional systems and no longer hold the same beliefs. This means that they can by-pass the traditional rules and this has posed heavy challenges to the Taboo system and secrecy as ways of protecting knowledge from external extraction.

8.8.2 EVASION/REFUSAL

Closely related to secrecy is the practice of IMPs to refuse to divulge knowledge particularly to strangers. Research has shown that holders of knowledge either refuse completely or simply mislead researchers by supplying wrong information.²⁵⁶ By giving the wrong information their aim is to mislead researchers into thinking that their knowledge is useless and hence disillusion them. Among them wrong data given to another meant that the latter would get a bad reputation and hence eliminate competition. The practice of evasion is essentially a defence mechanism that has become more pronounced in the fight against knowledge and resource hunters in indigenous territories. Holders fear that researchers are doing so to rob them of their knowledge, which they will use in their labs for pharmaceutical companies and yet they are neither acknowledged nor paid for their contribution.

However it is notable that practitioners have always been willing to share information as long as there is fair exchange for value. The key element is that knowledge was not divulged for free further underlining the importance of the economic value of knowledge.

In the present era IMPs charge quite a lot of money and earn their livelihood from selling their knowledge and services²⁵⁷. There is a growing concentration of IMPs in urban areas where the market is bigger, liquid and accessible. The economic value of knowledge is therefore an important part of the system. This also explains why some IMPs are prepared to sell their knowledge to local and foreigners prospectors even though the fees they charge are quite negligible compared to the economic benefits that accrue to the prospectors when they eventually use the knowledge to develop drugs.

8.8.3 RESTRICTIVE SYSTEM OF KNOWLEDGE TRANSMISSION

The system of passing on knowledge from one person to another is also a protection mechanism²⁵⁸. Traditionally it ensured that knowledge was not lost with the passage of one generation. It could always be transmitted to a living host by any of the spiritual means already described in this chapter. Secondly, it meant that knowledge was passed only to the right person through the correct family or clan line. The process of *Kurotswa* or revelations indicates that only select individuals were favoured with the distinction of receiving exclusive knowledge through spiritual means. As such the knowledge could not be passed to anyone else unless one had contact with the spiritual side. This means that knowledge remains in a single family or clan line. The other way of passing on knowledge by teaching an individual also worked in a similar way. It was revealed that

²⁵⁶ Interview with Sekuru Sibanda. He gave an example of Sekuru Burombo, a renowned IMP who had publicly declared that he would never give away information to western researchers who were visiting him because there was unfair exchange.

²⁵⁷ Mr Hore, a teacher complained that the fees charged by most IMPs nowadays are too high and most people find it hard to afford the costs. For a complicated case, an IMP can charge as much as 10 head of cattle which is beyond the means of many.

²⁵⁸ Interview with Sekuru Machaka and discussions with villagers in *Chikomba*

the process of choosing an apprentice was carefully formulated and only a member that met strict criteria was given the knowledge. Knowledge is only divulged to special individuals selected from the group and this has maintained the monopoly in knowledge in particular families or clans.

8.8.4 INTERNAL DISCIPLINARY MEASURES

An IMP is only useful to his community if members consult him. If he is not consulted he cannot perform his practice. Thus society is an important control mechanism for use and practice of medical knowledge. In the event that the recipient of the knowledge deviates from the rules and norms, rituals of the community it is believed that the knowledge is “withdrawn” from him²⁵⁹ by the spirits. This knowledge is a gift of the ancestors and for one to apply it, the community performs certain rituals. It is believed that the community can also perform rituals to enable the “withdrawal” of the knowledge from the person who fails to abide by custom or abuses the knowledge. The person could also be ostracised by society so that the individual could not apply the knowledge and he would become redundant. A bad reputation spells disaster for one's practice. It is important to have a good reputation but when one loses it, he can fail to practice. So in general communities have internal mechanisms of dealing with deviant members and protecting knowledge systems. This system also shows the interdependence between the individual holder of knowledge and the community and the structure of rights and responsibilities.

²⁵⁹ Sekuru Maromo explained that because the transmission of knowledge is controlled by the spirits, if an IMP abuses his position or misbehaves, it is believed that the spirits can become angry and will withdraw their assistance. The spirit can then choose another member of the family through whom it can reveal itself.

8.8.5 PRESERVATION OF BIODIVERSITY

The existence of IMK is dependent on the availability of the biological resources from which medicinal properties are extracted. People learn about medicinal uses of plants and animals from the plants and animals in existence. If they become extinct, the new knowledge that would have been gained is lost and similarly since there is no written specification, the survival of the knowledge is directly connected to the survival of the plants on which it is based. The Indigenous Communities therefore have always had an incentive to preserve biological diversity as a means of protecting their knowledge from extinction. The taboo system also played its part in this scheme because people were prohibited from cutting or killing certain plant and animal species²⁶⁰. These species were normally the plants and animals with useful medicinal properties and were only accessible to IMPs and elders who knew their uses. Some sites were considered to be sacred the purpose of which was to deter people from unnecessarily entering those areas and cutting down useful plants²⁶¹. Therefore the preservation of biological diversity has always been one way of ensuring the survival of IMK within the communities. In this way also the community played a crucial role in the protection of knowledge.

This is based on cultural beliefs and does not explain whether he will forget all knowledge of herbs and other medicinal substances that he would have used before.

²⁶⁰ Indeed during the fieldwork in Wedza, the researcher was able to observe the selective treatment of plants as they gathered firewood.

²⁶¹ Mbuya Chikomo and the researcher was also shown some sacred spots in the Gandamasungu mountains in Wedza by Mbuya Makwinja

SUMMARY

The protection mechanisms for IMK in indigenous communities were carefully constructed for social, economic, cultural and ecological reasons. The overriding concern was that knowledge must be preserved and protected from abuse and extinction. As medical knowledge was essential for society's survival it was important to ensure that it was not lost or abused. The protection mechanisms were developed from within and in response to the problems arising in those communities. Crucially, among themselves, IMPs and the communities recognise the fact that certain IMPs hold certain aspects of knowledge. As the ZINATHA register shows the IMPs spread across the country have certain specialisms in different fields. It is not difficult to identify the holders of particular types of knowledge for specific ailments. While there are common aspects of IMK held across a wide spectrum of IMPs often IMPs gain reputations for their specialisms in specific fields.

Another important element is that knowledge was for the benefit of the whole community. The whole community also participated in the protection of knowledge. It was developed not for selfish reasons but for the preservation of society. While the holders were rewarded for their task of keeping the knowledge and offering services they also recognised the importance of the society within which they operated. The community participated by preserving the bio-diversity and controlling errant knowledge holders. There was in place a balanced structure of rights and obligations between

knowledge holders and the community. Any system for the protection of indigenous knowledge in this age would have to recognise that important feature. There was both a monopolisation and communal mixture in the web of duties and rights between the community and the individual.

8.9 CHALLENGES TO THE TRADITIONAL SYSTEMS IN INDIGENOUS COMMUNITIES

At present IMK systems are faced with both internal and external challenges including cultural transformation, uncontrolled trade in knowledge and biological resources. There are a number of problems currently challenging the IMK System in Zimbabwe. Although some of the old mechanisms continue to be used in response to these factors the real question is how far these responses have gone to effectively counter the problems arising. As indicated, the current mechanisms relied on the cultural life of the community. However the religious and cultural foundations in the indigenous communities continue to be disturbed by the introduction of new religions, urbanisation, western education and related external influences. This has caused the dissipation of respect for the traditional cultural values and tenets that bound society together.

Modern medicine was introduced in the indigenous territories during a period of great social and political changes. The colonial state manipulated the western medicine by using it as a tool of colonisation by attempting to demonstrate and consolidate the supremacy of the western colonial powers. While the majority of indigenous

Zimbabweans have embraced western medicine they also continue to rely on the indigenous medical system. Therefore while western medical systems play a significant role in society, the indigenous systems also continue to play a crucial part. Nevertheless, the problems and challenges are threatening the survival of the IMK systems that form the base of the indigenous medical system. Over the years the impact of colonisation and attendant forces has posed significant challenges to the IMK systems. These forces range from the impact physical displacement from indigenous territories to the changing attitudes to IMK arising from attempts at modernisation. The major problems are:

- i. Disruption of Socio-cultural life of the Indigenous Peoples
- ii. Research, knowledge and biological piracy
- iii. Development of secondary markets
- iv. Environmental disruption and loss of biological diversity
- v. Negative association with witchcraft and bad practices
- vi. Fatal side effects of indigenous medicines

8.9.1 DISRUPTION OF SOCIO-CULTURAL LIFE

One of the major threats to IMK is the general disruption to the socio-cultural life of Indigenous Peoples by the advent of modern western-oriented lifestyles among the communities²⁶². The social fabric within which the systems were interwoven has been transformed such that the systems no longer enjoy the same exclusive status of the old

²⁶² Interview with Sekuru Chikomo, “There have been too many winds from the west that have affected our society”

era. The advent of colonialism brought in many external factors that were hitherto unknown in traditional societies. Urbanisation, influence of other religions such as Christianity, Islam, etc have contributed to the disruption of the way of life of Indigenous Peoples. Arguably it was the single major event that brought in massive changes in the way the local people lived and conducted their affairs. Christianity and Western education were manipulated by the politics of the day to displace and annihilate the IMK system.

The result has been that some of the indigenous people have lost contact with their cultural life and as such the ties that bound people to their environment, rules and norms have been fundamentally altered and weakened in the process. The rules for protecting and preserving IMK have lost authority over these people and their efficacy as protective mechanisms has been drastically reduced. This has led to some bad practices whereby people easily give away knowledge to prospectors without restraint or some locals use it for commercial profits without paying due regard to the community rights²⁶³. Indeed during fieldwork the researcher visited a number of open markets such as *Mbare Musika* and *Mupedzanhamo* in Harare where an unregulated trade in indigenous medicine takes place²⁶⁴. The loss of the values that bound society together means that protection mechanisms such as the taboo system no longer have the desired effect of restraining individuals.

²⁶³ Mr Moyo of Harare pointed out “These days people have lost respect for culture and they despise the traditional beliefs. But they forget that even before Christianity and Islam were brought here, our ancestors survived and led a good life. If our beliefs are so bad, how did we survive before Christianity?”

²⁶⁴ See section below on development of secondary markets

This disruption also means that the traditional means of transmitting knowledge have also been affected as some people in different faiths refuse to perform the required rituals. The use of apprentices is useful but it only caters for the herbal side of indigenous medicine and does not help the continuation of the spiritual aspects. The urbanised and converted who refuse to accept the gifts of knowledge endowed on them cut the transmission systems and hence the survival of the knowledge system in the long run.

8.9.2 RESEARCH, KNOWLEDGE AND BIOLOGICAL PIRACY

The biggest problem arising from research into IMK systems is the unregulated trade in knowledge and biological resources in the indigenous communities. According to Professor Chavunduka, members of ZINATHA have been inundated with requests for information relating to their herbal remedies for disease from the local and foreign research communities. Some foreigners come as cultural tourists purporting to learn the indigenous languages and cultures but end up acquiring the knowledge for commercial use²⁶⁵. IMPs also indicated that local people are also being used as agents to acquire this knowledge. As a result the IMPs have become sceptical of the intentions of the research community. The practice of acquiring and selling IMK to research institutions and commercial enterprises has increased a lot over the last few years. As one respondent put it,

²⁶⁵ In the words of Sekuru Sibanda, “So many foreigners are coming to consult our members on the use of their medicines and when they are given the information they sell it to companies for profit. Our members contributions are not indicated and they do not get adequate compensation if their knowledge is applied successfully”

“These researchers come to us and take our knowledge. They go away and do their experiments. They never come back. After some time we hear that they have developed this drug or that product. They never pay us a cent. They never say that they got help from us...”²⁶⁶

The IMPs complain that their knowledge is being “stolen” by scientists who never pay due regard to their contributions. The system of IMK is threatened as practitioners become disillusioned and as the medicinal herbs and animals are harvested on a large scale they will end up losing some of the knowledge that relates to those resources. Yet IMK is an important part of conservation of bio-diversity. Bio-piracy, which is a key part of this study, has become a major problem for IMPs who lament the rampant use of their knowledge without acknowledgement of their contribution. The practice ignores IMK as a legitimate system of knowledge that deserves recognition and fails to honour the contributions of the holders and the communities within which it was developed²⁶⁷.

This problem has become a major cause for concern that ZINATHA and concerned NGOs such as Community Technology Development Trust (CTDT) have been mobilising support and lobbying the state to enact legislation to protect the rights of indigenous knowledge holders²⁶⁸.

²⁶⁶ Interview with Sekuru Sibanda

²⁶⁷ Interview with Ambuya Gwara in Sadza

²⁶⁸ Interview with Mr Andrew Mushita, Director of Community Technology Development Trust. His organisation is on the forefront of lobbying the state and other actors to assist indigenous knowledge holders and to stop the practice of biopiracy. He has been involved in the major case that highlights the gravity of the problem – the case is stated in more detail below.

The research into the IMK system has been taking place since the colonial period. The problem is that results of the research have been published in books and journals with the effect that secrecy as a method of protection has lost further strength. A large quantity of IMK is now in the public domain as result of the publications and sometimes the hunters of knowledge do not even need to consult IMPs but can simply refer to the published material. All they have to negotiate for are the biological resources in the local areas where they are located²⁶⁹. In effect the publication of IMK has affected the efficacy of local protection mechanisms and has exposed IMK to easy access and exploitation.

The problem of knowledge and biological resource exploitation is best captured by the following study of a controversial case that has been on going in Zimbabwe for the past few of years. The matter has been going on for about five years and by the time of completing this research it had not yet been resolved²⁷⁰.

8.9.2.1 CASE STUDY OF BIOLOGICAL AND KNOWLEDGE PIRACY IN ZIMBABWE: THE CASE OF THE *Swartzia madagascariensis* (The Snake-Bean tree/Mutukutu)

This matter involves several parties both directly and indirectly. The major parties include the University of Zimbabwe, Professor Kurt Hostettmann and the University of

²⁶⁹ According to Professor Gundidza, most scientists can easily refer to the published material and not acknowledge the original holders of the knowledge. This makes it difficult for knowledge holders to assert their claims or to even know that knowledge is being used.

Lausanne in Switzerland, NGOs including Community Technology Development Trust, the Zimbabwe National Traditional Healers Association (ZINATHA) and the National Botanical Gardens in Harare.

The history of the matter dates back to the mid-1980s when a Zimbabwean graduate student studying at the University of Lausanne carried an investigation into how the *Mutukutu* plant's seed pods kill particular types of snails²⁷¹. The bark of the root also killed fungi. He had acquired the relevant knowledge during his previous studies at the University of Zimbabwe when he carried out research into indigenous medicines using local communities. Some years later during research to find out about plants that could be used to treat fungal infections, Professor Hosttettman and his team recalled the bark of the root of the Mutukutu/Snake-bean tree. At that time enquiries were made to learn more information about this plant and its uses by IMPs in Zimbabwe.

Subsequently in 1995 an agreement was entered between the University of Zimbabwe (UZ) and the Swiss University of Lausanne in terms of which the Pharmacy department at the UZ would screen species of flora that was used in traditional medicine in Zimbabwe²⁷². In terms of the agreement the selection and collection of plant material was to be done by the National Herbarium and National Botanical Gardens taxonomists in

²⁷⁰ As a result of the sensitive negotiations taking place in attempts to resolve the case information was not easily available for publication. However, useful data was obtained from various sources such as ZINATHA, Community Technology Development Trust and others who preferred to remain anonymous.

²⁷¹ Information gathered from an anonymous interviewee at the University of Zimbabwe.

²⁷² Persistent efforts to secure that agreement were fruitless due to the negotiations but some relevant aspects were supplied by individuals who requested anonymity.

Harare while the Department of Pharmacy at the UZ was tasked with the preliminary extraction of essential compounds²⁷³.

The agreement was intended to build a foundation for the screening of medicinal and poisonous plants in Zimbabwe from a sample of about 5000 and to move towards collective drug development. To that extent this was collaboration in research. Under the agreement, the Swiss were to get access to more than 5000 species of medicinal plants used in Zimbabwe by IMPs. Lausanne would supply financial assistance and equipment for the research project. Article 5 (F) of the agreement stipulated that the benefits of the agreement would accrue to two parties, namely the University of Lausanne and the UZ. It also provided for the *“joint application of any patent filed”* and the proceeds would specifically benefit the same parties. Any modifications to the agreement were to be on mutually agreed terms.

However in this agreement there was no mention of the IMPs or local communities as the primary providers of the knowledge necessary to do the research. In addition the State, which in terms of the Convention on Biological Diversity (CBD) is the legal custodian of all biological resources in the country was not accorded any meaningful position in the agreement²⁷⁴. Although they were the original suppliers of the primary knowledge and resources the IMPs were not parties to the agreement and there was no provision for

²⁷³ Interview with Professor Gundidza of the University of Zimbabwe

²⁷⁴ Interview with Professor Chavhunduka. Also an interview with Mr Mushita who indicated that the requirements of the CBD were completely ignored.

equitable benefit sharing in their favour²⁷⁵. Prior informed Consent of both the state and the Indigenous Peoples whose resources and knowledge were the subject of the agreement was not sought and this was also in contravention of the CBD to which both Zimbabwe and Switzerland are parties²⁷⁶.

The research conducted in respect of the *Mutukutu* established it has useful medicinal properties for the treatment of fungal infections. When in 1999 there was development of a drug to treat fungal infections using the plant material the University of Lausanne went on to register a patent and negotiate with a US pharmaceutical company *Phytera* for purposes of licensing the patent rights²⁷⁷. This patent registration did not include the UZ as required in terms of the agreement. According to scientists at the UZ the UZ was not acknowledged for its contribution to the research. The original suppliers of the knowledge, the IMPs were totally ignored from the agreement and had no knowledge of the patent until the matter was publicised. When the UZ discovered that there was a patent they filed a complaint with Lausanne²⁷⁸. The NGOs that had identified the anomaly through a random survey of bio-piracy cases decided to fight the case²⁷⁹.

²⁷⁵ In an interview with Mr Kandiyo, the administrator at ZINATHA, he indicated that the association was concerned that they had been excluded from the agreement and were due to receive nothing from the results of the research.

²⁷⁶ An official at the Ministry of Environment and Tourism indicated the state's grave concern at the nature of the agreement and the exclusion of concerned parties.

²⁷⁷ US Patent No. 5,929,124/99, which applies in broad terms to antimicrobial uses of the compounds derived from the snake-bean tree.

²⁷⁸ An alert Swiss environmental activist tipped the Zimbabweans when the story of the new discoveries was published in the UK press.

²⁷⁹ The concerned NGOs were the Berne Declaration in Switzerland and Community Technology Development Trust in Zimbabwe

Lausanne admitted that there had been a breach of the agreement and negotiations have been going on with a view to rectifying the situation²⁸⁰.

The argument from Lausanne is that the discovery had had little to do with the IMK in Zimbabwe and that they had in fact conducted complex research processes which scientists from Zimbabwe were not capable of doing. Mr Martson, head of research at Lausanne is quoted as stating that “I don’t want to pretend nobody has used it in any antifungal activity in traditional medicine, but we don’t have any documented evidence”²⁸¹ of the uses. Thus the issue of written records cropped up again as it so often does in the case of dismissing IMK.

8.9.2.2 ASSESSMENT OF THE CASE

A telling point in this case is the marginalisation of the Indigenous Peoples who were the original suppliers of the knowledge used in the research project leading to the development and patenting of the drug. They were marginalised right from the beginning when the research agreement was signed. The case illustrates the role that private and public research bodies in Zimbabwe play as conduits for the exploitation of indigenous knowledge. It may appear *prima facie*, as a case between the University of Lausanne and UZ but on deeper analysis it is in fact a battle between IMK and modern systems of scientific endeavour which attempt to use IMK but refuse to accept them officially. In

²⁸⁰ Interview with Mr Mushita.

²⁸¹ “Bitter remedies: The search for plants that heal generates international feuding” The Wall Street Journal 8th June 2001 also at <http://www.lind.org.zw/people/herbs/snake_bean.htm> (last visited on 15/05/03)

this case IMK is used a raw material in the knowledge development process but its contributors do not get the recognition nor rewards. The poor handling of the project may justify the complaints of the IMPs against exploitation of their knowledge and resources. Consequently when they refuse to participate in future projects it is because they are not being given their proper status as significant stakeholders in the research process.

It also shows the link between IMK and biological resources that are the subject of the CBD. It raises the point that there are in fact two issues for consideration is dealing with these problems in that it is not only the protection of knowledge that is at issue but also the protection and preservation of biological diversity as required by the CBD. While some knowledge was available already from the previous research by the graduate student at Lausanne, they still needed more data and the plant material to carry out the investigation. This plant material was acquired in Zimbabwe although the state was not aware of this agreement. The State necessarily gets involved because it is entitled to the resources under the CBD. One of the issues is that Lausanne, a foreign body gained access to Zimbabwe's biological resources without the involvement of the state and this goes against the CBD. At the same time the state is required to ensure that the indigenous communities are actively involved and they get benefits for the use of biological resources in their territories. In addition it also raises the question as to how far the state can represent and protect the interests of local communities. Unfortunately the lacunae in the national legal system is that at the time Zimbabwe did not have local legislation for regulating access to biological resources and benefit sharing schemes²⁸². At the time of

²⁸² Belatedly and as a result of pressure arising from cases like this one, the state has this year (2003) enacted the Environmental Management Act.

the case Zimbabwe had yet to implement the requirements of the CBD relating to protection of biological resources and the rights of the Indigenous communities²⁸³.

This case is described by the CTD as a “lesson on bio-piracy and should be used as a basis to avoid future mistakes.”²⁸⁴ The international NGO Berne Declaration also condemned it in strong terms²⁸⁵. The NGOs have condemned the way in which Lausanne gained access to Zimbabwe’s genetic resources and the way the benefit sharing was negotiated because it never included the original providers of the knowledge and resources used to identify the compounds. According to the available data Lausanne argues that while it intended to include Mr Mavi, a Zimbabwean botanist in the patent application in order to recognise his contribution of the relevant plant material it was advised against it by US attorneys on the ground that he (Mr Mavi) had not actually taken part in the laboratory experimental research. This may also demonstrate the potential difficulties of using the patent system to grant rights where there is collaboration between the scientists and local people. IMPs are hardly going to be able to participate in the laboratory experiments. Although the agreement stated the requirement for a joint application, only the Swiss names were submitted.

This case illustrates the problem that is at the heart of this study. Interviews with IMPs and local people showed that they are concerned that there is a gap in the legal regime as

²⁸³ There is now the Environmental Management Act which makes provision for regulations for access and benefit sharing mechanisms but as discussed in Chapter 5 the law is still inadequate since it gives no room to the local participants. Instead it concentrates everything to the power and benefit of the state and its institutions. That Act is also concerned with protection of the physical materials and not specifically for the knowledge component.

²⁸⁴ Note from a document supplied by Mr Mushita (On File)

²⁸⁵ For more information refer to <http://www.twinside.org.sg/title/denounced.htm>

far as the protection of IMK is concerned. The use of negotiation rather than litigation or other legal channels cannot merely be explained on the rationale of convenience alone. Rather it is an indication of the lacuna that exists in the body of the law in that it does not recognise rights in indigenous knowledge. The NGOs involved indicated that they resorted to negotiation rather than litigation as a result of the lack of legal protection of indigenous knowledge²⁸⁶. The matter has been the subject of negotiation with a view to settle differences for more than 5 years.

Another interesting feature of this case is that the issue of indigenous knowledge is inextricably linked to the issue of protection of biological resources. Each person in a community is entitled to use of biological resources existing in their locality. However at law the State has the ultimate rights to all resources and in compliance with the CBD it is entitled to control access to such resources. It is also obligated to ensure that indigenous knowledge is preserved with a view to promoting preservation of biological diversity. In Zimbabwe the Ministry of Environment and Tourism is the government department that deals with these issues and has been involved with the IMPs and interested stakeholders to formulate policies on preservation of bio-diversity and protect knowledge.

Overall, this case illustrates a growing challenge to IMK systems and the limitations of the legal system in that it does not fully and adequately recognise nor protect the rights of custodians of knowledge. Even the formal negotiating processes seem to exclude the Indigenous Peoples. Negotiations are carried out at a level at which their active participation is limited. According to Professor Chavunduka through ZINATHA the

²⁸⁶ Interview with Andrew Mushita

IMPs supply medicine samples in order to prove to the modern scientists that their systems actually work. However they disapprove when behind their back, the scientists end up patenting the results of the research without their consent or knowledge and let alone without even acknowledging or compensating them for their contribution. The CTDT's director Andrew Mushita also echoed similar sentiments and criticised the research agreement on the grounds that²⁸⁷:

- a) The state was not included as a party to the agreement as required by the CBD. The officials at the Ministry of Environment and Tourism also confirmed that they are the legal authority to grant access to Zimbabwean biological resources. The agreement violated this fundamental point of international law.
 - b) The current agreement only benefits the University of Zimbabwe and the National Herbarium is meaning that the other stakeholders such as the IMPs and the State are marginalised. This is also contrary to the CBD's Article 8(J) which mandates benefit sharing mechanisms for Indigenous communities.
 - c) The benefit sharing mechanism of the agreement is not consistent with common practice in the sense that there is no provision for a future benefit-sharing agreement in the event that the product is commercialised.
 - d) The current agreement does not provide mechanisms for the acknowledgement and compensation of IMPs and the communities for the use of IKS.
 - e) The situation indicates that access to medicinal plants was granted to the Lausanne at below fair value given the potential for huge returns in the drug manufacturing industry.
- The research agreement is not fair to the Indigenous Peoples.

²⁸⁷ Interview with Mr Mushita

The result of this wrangle has been a suspension of the agreement for research pending the determination of the long running dispute. Arguably the opposition is not to research but to the way in which research has been conducted in this case. This case was well publicised in the Zimbabwean press and the result has been reluctance by IMPs to divulge knowledge for fear that their contributions will suffer a similar fate. This shows the counter-productive nature of current research practices, which are scaring otherwise willing participants in information sharing and drug development. In their struggle to prove the efficacy of their medicines, they have realised that the current terrain is not level and actually facilitates the “theft” of their knowledge as they put it. In that sense this case illustrates the crucial point of this study that while research in principle is not the problem, it is the manner in which it has been conducted that poses greater difficulties and therefore should be the primary target for reform. The legal framework in Zimbabwe fails to effectively implement the CBD terms and hence the rights of the local people are inadequately protected.

8.9.3 DEVELOPMENT OF SECONDARY MARKETS

Over the years and particularly in recent times there has been a major development of secondary markets for indigenous medicine. This is constituted mainly by ordinary individuals who sell indigenous medicine on the open market. This is partly due to the economic difficulties that people are facing in Zimbabwe and also because of the lack of availability of access to conventional medicines because they are expensive and scarce on

the market. The Aids pandemic, which affects one in every four Zimbabweans has also contributed to general fear which leads people to buy whatever charlatans advertise and popularise as a possible traditional cure for ailments. In the late 1990s there was a popular traditional plant, commonly known as the African Potato, which became available on the streets of Harare and most urban areas. It was prescribed by vendors as a cure for all ailments. According to Chavunduka, while it was true that there is a plant called the African potato, which has a number of medicinal properties, most street vendors were selling fake versions of the plant to the unsuspecting public²⁸⁸. ZINATHA, which has become the public voice of authority on traditional medicine in Zimbabwe had to issue warnings to the public about the fake medicine which was being sold on the street markets.

The more fundamental concern is that such public sales mean that anyone can gain access to the knowledge and resources without any regulation. It has the effect of destroying the traditional and customary ways and practices of holding and exchanging knowledge and biological resources. It also amounts to the creation of IMK as objects and merely confined to herbal elements thereby sidelining the crucial spiritual aspects attached to the knowledge. Since things like the African Potato were being wrongfully marketed as “cures for all” there is a danger that if did not work or caused side effects it would continue to perpetuate negative images about IMK²⁸⁹. Crucially, the practices alienate the key stakeholders of the IMK system whose practice according to customary norms is

²⁸⁸ Interview with Chavunduka

²⁸⁹ More recently, there was the popular marketing of a liquid product called *Musimboti*, which was also touted as a cure for everything. Again ZINATHA had to come up and clear the issue with the public. Interestingly *Musimboti* was being sold even in major shops and not just on the streets.

overshadowed by the urban practice of street vending. Street vendors are simply business people whose interest is the economic value that comes from their sales and they do not account to clients in the same way of the traditional practitioners. The key point here has been the failure by the government to react to this wrongful trade and protect the integrity of the IMK system from abuse by hundreds of charlatans. It has been left to ZINATHA to react but it lacks the necessary legal powers and resources. These secondary markets pose great danger to the IMK and the preservation of bio-diversity due to over-harvesting of resources by vendors.

8.9.4 ENVIRONMENTAL DAMAGE

The threat to the survival of certain plant and animal species also threatens IMK. IMPs in urban areas whose access is limited to a small part of the land tend to over-harvest the little that is available. General deforestation for fuel and building purposes contributes to the loss of plant species. The over-harvesting and exploitation of plants has resulted in scarcity of medicinal plants and animal species²⁹⁰. The majority of the indigenous population has lived in restricted communal areas for over hundred years as a result of the colonial land distribution patterns. The access to resources has been restricted leading to overuse of the little that was available. If the necessary plant and animal species disappear, it is difficult to sustain IMK that survives through usage. If not applied it runs the risk of facing extinction.

²⁹⁰ Mpande 2002 – Unpublished paper supplied during fieldwork

The land invasions in Zimbabwe at the turn of the century have meant that former nature reserves have been invaded and people indiscriminately cut down key plants and slaughter wild animals without due regard to the environmental impact of their actions²⁹¹. This has been exacerbated by the influx of street vendors harvesting medicinal plants for re-sale in the urban markets as medical cures for ailments. The government has not done anything to stop this and in fact encouraged the chaotic land distribution exercise. Environmental damage affecting indigenous plant species has also resulted from the influx of exotic plant species introduced during the colonial era. This has been a particular concern in the Eastern Highlands area of Zimbabwe where pine and wattle trees have invaded and engulfed the natural habitats. Pine trees dominate the landscape and since they drain moisture and nutrients at a high rate they deprive the local indigenous species of space for growth²⁹². As a result farmers and other individuals have been undertaking projects to reduce the colonisation of the natural forests by the pine and wattle trees. The colonisation of the forests means that indigenous plants and animals could be severely affected thereby also affecting the survival of indigenous knowledge systems that depend on their survival.

8.9.5 ASSOCIATION WITH WITCHCRAFT AND RITUAL KILLINGS

IMK in Zimbabwe has been tainted by the unscrupulous ways in which some practitioners and charlatans have used it particularly in more recent times. The belief in

²⁹¹ In the years since 2000 Zimbabwe has been engulfed in a political and economic crisis which has seen the destruction of commercial agriculture as a result of unlawful farm invasions.

witchcraft is still very strong in African communities and witches are believed to cause death and misfortune. This has often led to persecution of individuals accused of witchcraft and in so doing human rights of individuals are violated as the accused witches are often persecuted and ostracised by society. The members who call themselves *Tsikamutanda* have been accused of causing havoc in the communities by holding witch-hunting ceremonies²⁹³. This has caused numerous deaths among the people and ZINATHA has also condemned the practice, which is not according to tradition. Other IMPs are known to possess charms that are believed to bring luck and assist people in their business or trade. These IMPs prescribe the use of human or animal tissue, which means that the person seeking a fortune will be involved in ritual killings of innocent people²⁹⁴. This type of activity has been on the rise in recent years²⁹⁵. Other IMPs claiming to have discovered a cure for AIDS have been alleged to prescribe such uncouth practices as have sexual intercourse with a virgin often leading to rape of children. Some IMPs have also been accused of raping women patients during the healing ceremonies.

Again, the rise of charlatans has been caused by greed and desperate economic conditions, which force people to create desperate measures to survive. In a bid to get publicity, some healers make wild claims such as their ability to cure AIDS, etc. The net

²⁹² It has been reported that "their remarkable fertility and very easy dissemination of their seeds leads to propagation that is virtually out of control in the Eastern Highlands." Article by Mills H. " **Campaign to restore indigenous flora and fauna gathers momentum**" in The Daily News 30 November 2000

²⁹³ See article by Mukumbira R. "Shock treatment for widows as pandemic ravages Zimbabwe" AfricaNews March 2002 located at http://www.peacelink.it/afrinews/72_issue/p1.html (last visited 20/01/04) Also another article in which ZINATHA requests for the arrest of the *Tsikamutanda* who are using fake ZINATHA certificates "Arrest Witch-Hunters, Says Zinatha" July 24 2004 located at <http://allafrica.com/stories/printable/200407260134.html> (last visited on 28/07/04)

²⁹⁴ "Too old to be sacrificed" The Zimbabwe Standard 18th – 24th April 1999

²⁹⁵ "Ritual murders and trade in body parts on the increase" The Sunday Mail, 18th April 1999, "Couple in alleged ritual killing granted bail" The Daily News 30th March 1999

effect of these uncouth activities has been to tarnish the public image of IMPs and the IMK system generally. In an interview, the president of ZINATHA emphasised however that genuine IMPs do not engage in such activities and those that commit offences abusing the system are brought to book and should be prosecuted in the courts of law. Nonetheless the negative images painted throughout history will be hard to erase when the present generation of knowledge holders are implicated in activities of this kind. The state has done nothing substantive to deal with cases of charlatans whose fate is only decided by the criminal justice system, which does not recognise the practice of traditional medicine. Unless they break the common law rules and commit offences such as rape or murder, there is nothing else that can stop them from continuing to pose as healers. This contributes to the negative image of the IMK system.

8.9.6 HARMFUL AND FATAL SIDE EFFECTS

One of the problems that is associated with indigenous medicine is the harmful effects of some medicines due to inaccuracy of the dosages or other compounds in the plant extracts that may be dangerous²⁹⁶. Scientists pointed out that some plants like Aloe that are used by IMPs to treat patients are harmful. Members of the public randomly interviewed at the *Mbare Musika* and *Mupedzanhamo* market for medicinal drugs also expressed fears that the extracts and powders often used as aphrodisiacs cause renal

²⁹⁶ According to Kenneth Gumbo in Zvishavane, "Of all patients suffering from asbestos-related ailments I have examined, those whose problems have also been attended to by traditional healers have worsened. This is probably due to the conditions in which patients are attended to. The utensils used to mix the medicine are not sterilised. The environment is always dirty and polluted because traditional healers always have one thing or another to burn. Poisonous or not, plants are prescribed for everything." He is quoted by

problems in the long run because they are not refined. Scientists indicated that the presence of some solvents in these substances causes renal failure.

There is need to gauge the exact properties of herbs that are useful and to measure dosages appropriately²⁹⁷. When medicine is used and ends up killing the patient it gives a bad name to the system among the public. This is also worsened by the general vendors that sell in the streets without giving proper prescriptions or neutralising the toxic elements of the herbs. Chavunduka argued that properly trained practitioners know when to collect the herbs because at some stages they are poisonous. However, the charlatans who are vending indigenous medicine in the streets do not have the same knowledge but when the public is told about the problems, there is no discrimination as to whether the medicine was provided by a vendor or by a proper practitioner. Unless the government intervenes and stops the wrongful practice, indigenous medicine will continue to attract bad publicity. Indeed most members of the public thought that it would be better to develop these drugs which they see as very helpful in order to eliminate the elements that cause harmful consequences. A visit to the ZINATHA pharmacy in Harare in June 2001 showed that some medicines are now packed in capsules and clean, properly labelled bottles with full instructions and measurements.

8.10 INDIGENOUS PEOPLES' VIEWS AND ATTITUDES TO IP LAW

Mukumbira R. in an article "More People Turn to Traditional Medicine" published at <http://lists.peacelink.it/afrinews/msg00192.html> (last visited on 12 May 2004)

²⁹⁷ Interviews with Professor Gundidza at the University of Zimbabwe

In Zimbabwe, as in other communities, Indigenous Peoples, campaigners and researchers have also voiced concern at the failure of IP law to address the immediate concerns of Indigenous Peoples in relation to their knowledge (Chavunduka 2000, Mpande 1998, Chitsike 1998)²⁹⁸. During field research views on the use of IP law were sought from the stakeholders and the public. The majority of the people interviewed had little knowledge of IP law. Many times therefore the researcher had to explain the nature of IP law and its role in knowledge protection. However, a few respondents saw a positive role for IP law in the protection of IKS.

8.10.1 PREDOMINANT VIEWS ON IP LAW

1. The respondents pointed out that the IP law system was not compatible with their type of knowledge. The overriding perception was that IP law is a construction of the West, which is used to “steal” their knowledge. The findings show that holders of indigenous knowledge are not conversant with the rules of the IP law system while some can neither read nor write. Those who knew something about IP law felt that it was not crafted with their knowledge systems in mind and therefore does not adequately cater for their needs.
2. In addition, Indigenous Peoples are sceptical of the IP law system which they see as a construct of the western countries to assist their multinational companies to dispossess them of their rights to resources existing and developed in their local

²⁹⁸ Unpublished papers supplied during interviews with respondents

communities²⁹⁹. The knowledge intensive industries like pharmaceuticals have an interest in the greater protection and global spread of IP system. They have the economic resources to participate in the system at a global level. The view is that considering that the powerful pharmaceutical companies have an interest in biological resources and indigenous knowledge for drug development, it is almost impossible for the impoverished indigenous communities to compete with them at the same level. They cannot participate on equal terms with the powerful corporate community that has vast economic leverage. Even at the operational level, the patent system clearly does not provide a level playing field.

3. The IP law system is viewed as being too expensive and inaccessible to the Indigenous Peoples. In cases where ZINATHA has tried to apply for patents they have found the costs to be unsustainable as they do not receive income from the state to assist them³⁰⁰. Thus, most respondents pointed out that even if they had the chance to patent their knowledge, the costs would be too prohibitive for the local people. Scientists showed that although they can successfully repackage IMK in order to meet the requirements of the patent system, they do not have the means to do so because the state does not support their efforts³⁰¹. They end up getting support from foreign organisations and companies such as the National Cancer Institute in the USA. They are funded and provided with the necessary equipment to do their work and

²⁹⁹ Literature shows that the powerful business lobby in the USA was responsible for the inclusion of the intellectual property rights issues in the realm of the World Trade Organisation Refer to Sell, S.K, Power and Ideas – North South Politics of Intellectual Property and Anti-Trust (State of New York University Press, 1998) and Ryan, M.P, Knowledge Diplomacy – Global Competition and the Politics of Intellectual Property (Brookings Institution Press, 1998)

³⁰⁰ Interview with Professor Chavunduka

³⁰¹ Interviews with Professor Gundidza and Dr Mashava at the University of Zimbabwe

invariably the organisations that contract with them have the advantage over the allocation of rights and benefits arising from the research.

4. Indigenous knowledge holders think that the concept of IP law appears to privilege the individual over the community whereas their perspective is that the community is more important. While the individual has entitlements there is a strong view that the individual must act in the best interests of the community and it is the community that gives him the chance to make any contributions. This idea of privileging the individual negates the concept of collective rights and responsibilities that is dominant in the indigenous communities and there is the danger that encouraging privatisation of aspects of the indigenous way of life might destroy the fabric of indigenous society. The predominant question was who could individually be entitled to rights in a knowledge system that is known to be collectively developed and a product of the common heritage and ancestry? There is also the danger that the individuals might compete to patent IMK thereby depriving others of the benefits that might arise from the products. IP law is seen as causing unnecessary rivalry among the people at the expense of collective production of knowledge.
5. Scientists and some members of the public pointed out that in reality, nowadays the holders of IMK use it for making individual profit. In that sense the under-valuation of the economic importance of IMK to its holders and practitioners is misleading. However, other respondents particularly the IMPs felt that the moral values relating to IMK are more dominant than the economic considerations. While IP law is

dominantly influenced by economic considerations, the IMK systems have a firm base in other values such as culture and religion that might be inadequately covered by the IP law system. There is a perception that indigenous medicine has industrial potential if properly harnessed and managed³⁰². As such there are some calls for more state assistance to enable collaboration between scientists and IMPs to promote commercialisation.

6. Field research revealed that some holders of knowledge are not necessarily interested in disclosing their knowledge for various reasons³⁰³. The cultural element is such that some knowledge is considered sacred to the extent that it should not be disclosed or applied publicly or in ways that demean its cultural status. In consideration of cultural, social and economic factors, certain knowledge remains within certain lineages in the family or clan systems. Disclosure may amount to blatant disregard with the norms in that community with the consequences on the holders or is believed to have an impact on the efficacy of the knowledge. It could be considered as abuse that might mean that the holder would have his powers or knowledge “withdrawn” by the community that is the overall custodian of the knowledge. A system of rights and

³⁰² Professor Sarah Feresu of the University of Zimbabwe Environmental Studies Centre there would be nothing wrong with collaborating with other countries in research on herbal plants given that Zimbabwe does not have the technological or financial capacity to do so. Quoted in **"ZINATHA, NGOs want law to protect plant species"** The Daily News 12 June 2001 In addition Chasokela thinks that if Zimbabwe can assist local scientists to collaborate with indigenous practitioners, they can manage to develop the industrial potential of local knowledge. Opinion entitled "Traditional Medicine's Industrial Potential" in The Business Tribune 28 May 2004

³⁰³ According to Chasokela, "Generally, most traditional healers are not keen to share their information about traditional medicine and practices, choosing to maintain a monopoly over this vital knowledge" (ibid) However, this is challenged by Chavunduka and others who argue that practitioners are not averse to research. Indeed this can be supported by the vast amounts of knowledge that have been published by the likes of Gelfand and Chavunduka on traditional medicine. Chasokela fails to recognise that the inequitable process of research may be the hindrance to getting the information from practitioners rather than their greed or selfishness per se.

responsibilities between holders of knowledge and the community precludes the disclosure of information other than in terms of the norms of that community. This makes it difficult for indigenous knowledge to satisfy the disclosure requirement of the patent system.

7. In addition, holders of knowledge in their respective communities indicate that the limitation of terms of the patents to 20 years conflicts with their age-old norms of holdership and distribution of knowledge. They had no limitation of terms and the new system of IP is seen as a way of disempowering the holders after a certain period of time. They have never had limitations and they do not see why there should be any new terms imposed via an alien system of law. In addition, fieldwork findings indicate that knowledge holders are sceptical of disclosure because it places their knowledge within the public domain and will become easily accessible to commercial entities. In view of their economic and organisational handicaps to monitor and enforce patents it is possible that their knowledge could be used without adequate compensation.
8. IP lawyers pointed out that although the statutes are changing to reflect the new developments ushered by TRIPS there is very little activity in the patent field in Zimbabwe. Most of the work that they do is registering foreign patents and trademarks³⁰⁴. They argued that the poor activity in patents is not that people are not inventive, but that they do not know about the availability of the system and even in

³⁰⁴ Mrs Nicky Garnett of Gill, Godlonton & Gerrans, Mr Maguchu of DMH Attorneys and lawyers at Honey & Blamckenberg

cases where they know about it, they do not have the means to process the applications. Officials at the Office of Patents and Trademarks in Harare also pointed out that there is not much activity as far as registration of local patents is concerned. A perusal of the documents at the Office showed that although a few people do come and register their intention to apply for a patent, often they do not follow it up. Often they discover that what is required might be beyond their economic means or they do not have the equipment to develop their inventions to a level where they can be successfully granted patents.

8.11 CONCLUSION

This chapter has shown that IMK systems in Zimbabwe have a long and rich tradition. Knowledge was developed to meet specific needs within the environment. The innovations and developments are entirely dependent on the natural environment and the connection between biological diversity and IMK is quite strong. The Indigenous Peoples see knowledge as an integral part of the universe. While knowledge of herbal medicine has attracted more attention from researchers, the spiritual side of IMK has largely been ignored and dismissed. However this approach fails to take cognisance of the fact that IMK is a broad and holistic body of knowledge. Indigenous Peoples are keen to encourage others to take the whole package as it stands and not to take a selective approach to aspects of IMK. This chapter has also shown that within their universe IMPs have over the years developed systems to protect and preserve knowledge and biological diversity. While these mechanisms still exist their efficacy is however in doubt given the

vast changes that have destroyed the social and cultural fabric on which they depended. Colonisation, urbanisation and new economic demands have and continue to present challenges to the traditional systems of life. Therefore the nature and distribution of IMK has been fundamentally affected. All these challenges have a bearing on the formulation of strategies and mechanisms of dealing with the main problem in connection with the knowledge systems.

The importance of IMK in Zimbabwe's health delivery system is clear while its significance for purposes of biological diversity is quite apparent from the symbiotic relationship between the natural environment and IMK. On the policy and institutional fronts, IMK has made important steps to gain recognition and acceptance within the Zimbabwean establishment although as the Struggle Thesis will show there is still a long way to go before concrete results can be gained. Arguably the ZINATHA and TMC are central players in any scheme for the protection of indigenous knowledge.

This chapter has also illustrated that the basis for protection of Indigenous Knowledge is rooted in cultural, economic as well as environmental aspects. A system of rights and obligations to society exists within indigenous communities. It is a system that balances the individual or group entitlements and the public interests. A key feature of IMK in Zimbabwe today is the willingness and efforts to promote research and development into indigenous medicine. There is a clear line of thinking that suggests that research and development per se is not bad but the complaints are about the way in which it is

conducted and organised. This could provide a platform for solutions for the problems currently facing IMK.

CHAPTER 9

ASSESSMENT OF THE NEEDS AND EXPECTATIONS OF INDIGENOUS PEOPLES

9.1 INTRODUCTION

This chapter builds towards the conclusion by assessing the needs and expectations of the indigenous communities in light of the findings in the fieldwork in Zimbabwe. The overall objective is to decipher the key features and elements emerging that ought to be taken into account in formulating policies and laws for the protection of IMK systems. While the findings are specific to the area covered under research, arguably the points of principle and policy arguments in this study should be useful in other areas that host indigenous communities.

The preceding chapters have concentrated firstly on presenting field data on “what” the situation of IMK is and secondly through the struggle thesis framework analysing “why” this is so. The analyses so far have demonstrated the vulnerability of IMK systems and the need for a more comprehensive mechanism for protection. The problems facing IMK run deeper than a mere technical assessment of whether or not IP law, as the dominant protection mechanism, is compatible with knowledge produced and held in indigenous communities. The aim of the approach was to investigate and understand the totality of IMK systems and to demonstrate the wide variety of challenges facing IMK systems. This study proposes that solutions have to be responsive to the different problems arising.

In order to find appropriate solutions it is necessary to briefly summarise the problems relating to IMK systems that have been identified in this study. This includes the problems identified in both the theoretical and field study.

9.2 SUMMARY OF PROBLEMS AFFECTING IMK SYSTEMS

The following are issues and problems that have been identified in this study:

- i. IMK is part of a wide range of elements that make up IKS and consequently the problems that it faces are within the context of difficulties such as poverty and physical marginalisation that have historically been faced by Indigenous Peoples. IMK systems, like other indigenous elements, have suffered from the marginalisation and discrimination with preference being given to WSK systems. The result is that IMK systems have not been given any level of official legal protection compared to WSK systems that have been guarded by means of the IP Law system.
- ii. The advance of Western legal systems paid scant regard to indigenous systems of knowledge protection. In reality, Indigenous Peoples have always valued their knowledge systems and had developed their own local mechanisms of guarding knowledge and giving incentives to those that held or developed knowledge. The effect on these systems has weakened the structures of protection and control in indigenous communities and consequently left IMK more vulnerable.

- iii. The blanket application of IP law is seen as a negation of the diversity of knowledge systems and the existence of local mechanisms of knowledge protection. Due to various conceptual and operational problems, in its present framework IP law appears to be an unsuitable mechanism for protecting IMK in its original form.
- iv. The international legal system for knowledge protection is skewed towards mainly WKS and the world trading system through the TRIPS Agreement further solidifies the position of the IP law system and WKS without making adequate provision for IKS. The global system for knowledge protection fails to take into account the existence of IKS and its protection requirements. Thus the IKS is not sufficiently protected both at the local and international levels.
- v. Generally the lack of protection of IKS is best understood as an historical phenomenon in the sense that from the time of encounter with the Western systems, IKS have always played a subordinate role due to systemic marginalisation. Since it was given a lower status, it never received adequate attention for purposes of protection.
- vi. Indigenous knowledge also faces threats from the declining biological diversity as a result commercial exploitation and general deforestation due to population pressure. The factors that affect biological diversity are as much a threat to the

survival of IMK as the practice of knowledge and biological piracy. Therefore, the problems affecting the environmental diversity in Zimbabwe are posing great challenges to the survival of IMK systems.

- vii. The colonial state was generally hostile to Indigenous Populations and used repressive ways to marginalise them from the mainstream economy. Many of their resources including lands were expropriated by the colonial state. IKS generally were also sidelined from the mainstream education curriculum and hence indigenous ways of knowing and passing on knowledge were downgraded. The post-colonial state has paid lip service to IKS by continuing the stereotypes attaching to indigenous languages, culture and knowledge. Although the post-colonial state initially showed intentions to promote the status of IMK most its statements have remained on paper and it has not adequately represented the interests of IKS in the international forums within which it participates. The problem is one of legitimacy and validity of indigenous knowledge systems within the national and international frameworks.
- viii. The research into the IMK systems gives rise to both challenges and opportunities in respect of their survival. In one sense Indigenous Peoples see research as facilitating the use of their knowledge for no recognition or compensation. To the extent that research empowers the research community and the WSK system and disempowers the indigenous, it is strongly opposed by the Indigenous Peoples who are calling for a more equitable way of conducting the process. In another

sense research has the potential of saving IMK that would otherwise be lost as it passes from one generation to another particularly in light of the disruption of the traditional systems caused by modern developments. It also serves as a route to legitimate and validate IMK systems in a field dominated by WSK conceptions. This is a dilemma that has to be resolved to determine the best way for research to enhance value to the Indigenous Peoples.

- ix. The changes to traditional lifestyles and the challenges brought about by the new demands of the modern lifestyle have meant that IMK systems are no longer totally isolated within the indigenous communities. The consequent exposure to the wider world has the effect of creating problems for the image of indigenous medicine as well as affecting the efficacy of the traditional mechanisms of protecting IMK. These changes have left IMK more vulnerable in light of the lack of new means of protection in the face of the challenges.

The solutions to the problems faced by IMK systems and IKS generally can be best understood against the background of these facts arising from both the literature and fieldwork undertaken in Zimbabwe during this study. The problems call for a wider approach than simple technical legal structures which have been debated widely by scholars and activists.

9.3 MOVING BEYOND MECHANISTIC LEGAL REPAIR

The preferred approach to deal with the problems is to take note of the rationale behind the Indigenous Peoples desire for protection without losing sight of the current and actual realities of the IMK systems as they exist alongside the WKS systems. The Struggle Thesis leads to the suggestion that a broader and more comprehensive approach that goes beyond the mere restructuring of the legal architecture is required in order to resolve the existing problems of Indigenous Peoples and their IMK systems. This approach privileges the needs of the Indigenous Peoples as they participate in the mainstream way of life and emphasise the necessity of taking into account the current realities of the IMK systems.

There are three points that are crucial to this approach:

- i. There is need to fill the legal gap in order to protect IMK systems which have no mechanism specifically dedicated to their nature and requirements both at the national and international levels;
- ii. The task of filling that void calls for policy-makers, scholars and activists to dispel some myths and misconceptions about IMK systems which build an idealistic picture but fail to take into account their current actual realities. The changes and developments to the IMK landscape need to be taken into account to reflect the true picture of IMK systems and build solutions that are responsive to the wider challenges.

- iii. The solutions to the problems of IMK systems require fundamental overhaul of the general system within which they are located and the perceptions in which they are held. It is therefore not just a question of filling the legal gap and trust that once that gap is filled then all the problems will be resolved. The problems call for a comprehensive change of *inter alia* attitudes, policies and structures that continue to undermine indigenous communities and their IMK systems.

The first aspect of repairing the legal architecture is what scholars and activists have been emphasising for a long time now. However despite the insistence that IMK is misunderstood and is continually evolving, they appear to have had an oversight of the fact that Indigenous Peoples' attitudes and practices towards IMK have also been changing in response to the new socio-economic realities. Consequently certain myths arising from the past or idealised conceptions about the nature of IMK and how the Indigenous Peoples deal with them have persisted to the extent that the past or idealised views flourish but may actually fail to tally with the present realities. This has not helped in the task of seeking solutions as there are bound to be contradictions between the ideal and the reality.

In the second point, this approach attempts to dispel some of those myths and pave the way for some practical solutions to deal with the problems thereby minimising the contradictions but also freeing the debate from the myths and misconceptions about Indigenous Peoples and IMK systems.

These misconceptions result from at least two sources:

- i. Mainly theoretical discussions relying on secondary literature which might be inaccurate in that it addresses the past and idealised picture but fails to account for the present realities. The majority of the literature in the area of protection of IKS is based on secondary sources or comes largely from the perspective of and within the context of IP law. Arguably, the proposed approach calls for more research in the indigenous communities in order to understand the current context within which IKS is located in the way this study attempts to do in Chapter 8.
- ii. There may be no account for the different circumstances of Indigenous Peoples in different parts of the world. This is because the observations in one Indigenous Community upon which interpretations and proposals are constructed can be easily though mistakenly taken to be representative of all Indigenous Peoples. The term “Indigenous Peoples” may be partly responsible, as it appears to universalise the experiences of people located in different geographical and social regions. It is necessary whenever formulating solutions to take note of possible differences and to tailor proposals according to context. It should however not be a barrier to the creation of an international framework for the protection of Indigenous Peoples’ rights generally.

The third aspect is fundamental because it introduces the need to look beyond the legal technicalities. The idea of the Struggle Thesis is to show the historical context within

which IMK systems were and continue to be neglected. That is where the importance of the element of “Struggle” in the thesis lies – that is, it is a process and a process can be negotiated and corrected and there is always room for change to meet new circumstances. Therefore the fundamental concern is not simply about setting up the legal tools for knowledge protection, but with changing the whole context that has placed IMK systems in vulnerable positions. While that requires the assistance of the law, more importantly it calls for political will on the part of those that wield power.

9.4 DISPELLING MYTHS AND MISCONCEPTIONS ABOUT INDIGENOUS PEOPLES AND IMK

There are several myths about Indigenous Peoples and knowledge that were uncovered during fieldwork:

9.4.1 The myth that Indigenous Peoples have no conceptions of property

It is often argued that the concept of property is alien to indigenous communities and consequently therefore that notions of ownership, possession, etc, are foreign to them. However as recorded in this study, Indigenous Peoples in Zimbabwe do recognise the fact that people have certain entitlements to things around them and that there are systems for regulating the relationships between people and in relation to things. De Soto (2000) confirms that local people are often underestimated yet in fact they have their own mechanisms of relating to resources and among themselves. He calls these local

arrangements as “local social contracts” which represent “collective understandings of how things are owned and how owners relate to each other” (2000: 164). Thus very often these firmly established rules are not taken into account in formulating solutions for problems in indigenous territories. As the fieldwork showed Indigenous Peoples do have local systems for the protection of their knowledge systems.

In addition, according to Drahos because all societies have had to create some norms and mechanisms for regulating the access, ownership and use of information it is possible to identify customary equivalents of intellectual property in the different societies (2000: 246). The WIPO Fact Finding Missions 1998-99 also found out that Indigenous Peoples have devised their own mechanisms for knowledge protection. Thus in reality arguments that there are no conceptions of entitlement to things in indigenous communities, are not accurate or representative of all Indigenous Peoples. It may be that these local conceptions of property do not necessarily correspond point by point with Western conceptions of property but that does not mean that there is totally no conception of entitlement to rights in both tangible and intangible things. Consequently the fact that IMK may be beyond the protective mechanisms of Patent Law or that it may be generally held by many people in a community does not necessarily mean that it becomes part of the public domain. There are individuals or groups who are entitled to rights in that knowledge within the local traditional systems and if proper channels are pursued they can be identified.

Another point is that most indigenous communities in the area of study are no longer totally insulated from the wider society that is influenced by Western ideas and values. The Struggle Thesis has already shown that in the constant interactions between Western and indigenous elements the influences of each system are evident in the other. Certainly in countries like Zimbabwe where most of the Indigenous Peoples have been integrated into the mainstream socio-economic system and the Western-oriented laws are dominant, the majority of people now live and conduct most of their activities in the mainstream socio-economic framework. Arguably, it would be misleading to suggest that they have no conceptions of property based on what it may have been in the pre-colonial days. Hence where transactions were paid by way of a herd of cattle a century ago, most transactions are now based on money. The point is that, on account of the struggles and contacts that have been identified, there have been some changes in the way Indigenous Peoples relate to each other and to things and these changes are now an integral part of their lives³⁰⁵.

The question of whether or not Indigenous Peoples in Zimbabwe have changed their conceptions regarding use and holdership of knowledge systems in Zimbabwe is one of fact. The findings from the field and literature provide some key signals. The findings have shown that knowledge is held in terms of specific lines - either clan or family that in most cases for one to access the knowledge they have to pay in terms of the custom and similarly exchange of knowledge between knowledge holders is for value. Whereas in the idealised past the system of charging and payment was relaxed and in some cases mere

³⁰⁵ This may be different from a community in another country that has not been integrated into the mainstream socio-economic life.

tokens of appreciation, in present day Zimbabwe due to socio-economic changes, the charges can be exorbitant in some cases. The marketing of medicines in pharmacies also shows the changes that have come about as a result of external influences³⁰⁶. ZINATHA now markets drugs in its pharmacy to compete in the market for medicinal drugs because of the competition posed by conventional pharmacies selling western medical drugs.

IMPs know who among them is a specialist in a particular field and also who possesses particular secrets. It is true that even beyond the current practice which signals change in conceptions and practice, there are still some aspects that remain constant. Thus for example, as the fieldwork findings have shown, there is always the belief that there is a source of knowledge beyond the actual holder of that knowledge at any given moment. Thus one is reminded of the hierarchy that places the *Mwari* at the top, through to the ancestral spirits and down to the actual holder of knowledge. This might mean that the holder of knowledge is a custodian for the whole local community. Consequently while he has immediate rights to the knowledge, the community also deserves a share of the benefits. In their community this may be achieved by paying the IMP and the community benefits by receiving the medical expertise on reasonable terms.

Thus, quite apart from the particular aspects of knowledge possession and ownership, it is necessary to understand that in Zimbabwe, indigenous communities are living in the wider society and most are no longer in isolation. As a result, what may have been their conceptions a century ago is not necessarily the same today. It is important to recognise

³⁰⁶ It was demonstrated in chapters 5 and 8 that secondary markets have developed consisting of many unregistered street vendors selling indigenous medicine on the open market.

that Indigenous Peoples do have certain conceptions of entitlement to knowledge and resources. The idea of individual and community duties and entitlements is crucial in this framework.

9.4.2 The impossibility of identifying the source of rights or knowledge

The other misconception is that it is not possible to identify or trace the source of assets³⁰⁷. In this case the belief is that there is no identifiable line to find out the source of the knowledge. In other words, some expropriators of knowledge argue that even if they do want to compensate Indigenous Peoples, they are unable to do so because either the tribe which provided the knowledge is no longer in existence or they do not know whom to compensate. They may also argue that even if they go to the communities they cannot identify the true source. This is quite inaccurate because as pointed out in the findings, if one goes into the community and appreciate the local systems it is possible to identify the rights belonging to a person or a group in relation to others.

In the communities they have their systems which they use to distribute the income or resource that they may get. It may be that Indigenous Peoples have not been involved in the whole process and it therefore appeared impossible or at least very difficult to identify some of the sources or beneficiaries. It is because Indigenous Peoples have been subjects of study and not participants in the construction and dissemination of knowledge about themselves. Therefore there appears to be some air of mystery around Indigenous Peoples

³⁰⁷ See Chapter 1 where the case of the Cactus is described. In that case the pharmaceutical company claimed that the source of the knowledge could not be identified.

because they have been looked at from a distance without involving them in the process. In reality the Indigenous Peoples actually have a great capacity to know who is entitled to what and where they live. They have mechanisms of distributing what comes into their community. In the same way that they distribute the game meat that their hunters get from their expedition, they surely do have ways of distributing whatever money or other benefits that have been yielded by their efforts.

9.4.3 The impression that there is no economic interest in the use and transfer of IMK and that the overriding importance is cultural value

There is the tendency to underplay the economic interest of Indigenous Peoples in their IMK systems and over-emphasise the cultural elements. The misconception is that Indigenous Peoples hold, use and distribute their knowledge for no economic gain but merely as part of their culture. Again, that might differ from one community to another but to make a blanket suggestion that there is no economic interest in relation to knowledge systems is inaccurate and misleading. Fieldwork has shown that even in the old days the IMP held a very important political and socio-economic position in society. The holder of specialist knowledge performed many functions that also included maintaining the health of the community – in itself an economic function. For their services and knowledge they received compensation. It may have been token appreciation at times but they still received payment in one form or another.

In order to fully appreciate the economic element one has to understand the old, traditional community. There were many people who performed various functions in the state. Some were blacksmiths, some were specialist farmers, others were soldiers and hunters, others were storytellers, and dancers, singers and many carried out other socio-economic functions. They worked for each other and they survived on each other's skills and talents. In order to get a service one had to pay for it. So if the IMP wanted the services of a blacksmith, he had to pay for it. Similarly much as there was a belief that the IMP got his talent and knowledge from the common ancestors, the blacksmiths or specialist hunter was also believed to have received the skill and knowledge as a gift from his spirits. So the IMP was special only as far as his skill was concerned but beyond that he was just like other specialists in their respective trades. In any event exchange of knowledge between IMPs was done on the basis of reciprocity or the knowledge provider was given some payment as appreciation of the exchange. To that extent, knowledge was always valued in economic terms. In addition, it is important to understand that there have been fundamental changes in society since the old days.

Certainly fieldwork has indicated that most IMPs now actively engage in the provision of medical knowledge through their services as an economic venture. This also explains the influx of IMPs in urban centres from the rural areas since the urban areas provide a lucrative market. IMPs charge heavily for their services and to that extent they are engaged in selling their knowledge for economic gain³⁰⁸. As indicated in the field results the visits to the main market in Harare at *Mbare Musika* showed many people selling

traditional medicines. ZINATHA's involvement in creating the pharmacy in part shows the desire to gain economic benefits from traditional medicine.

Thus the tendency to underplay the economic element in relation to the IMK system is misleading. The economic aspect of IMK is of primary importance in the formulation of solutions. It is true that traditionally the cultural element of IMK is very important as fieldwork findings indicate but the tendency to over-emphasise the cultural aspect while ignoring the economic aspects is inaccurate. Indeed the phenomenon of biopiracy is partly fuelled by the desire for economic gain on the part of the researchers and the local people who supply the knowledge. Some local people are participants in this process but the only problem is that they are weaker participants and solutions must focus on redressing the aspect unequal power relations.

9.4.4 The misconception that IMK is still in the exclusive domain of IMPs and local communities

In addition there is also the misconception that all IMK is still held in secrecy and exists exclusively within indigenous communities. This ignores the reality on the ground. The Struggle Thesis has shown that within the struggles there is an inevitable contact and interaction between knowledge systems and the respective holders. As fieldwork has shown, while IMPs hold specialist knowledge it is quite clear that researchers have and continue to acquire IMK from the local communities. Some knowledge which may have

³⁰⁸ As Chigodo points out "Traditional healers normally referred to as *n'angas* are making booming business as their drugs are cheaper than modern medicine and are widely available in practically most

been exclusively held by IMPs in the past has gradually sipped into the wider community and is generally available³⁰⁹. This study unearthed scientific publications that profile and discuss medicinal remedies from indigenous plants in great detail. The National Herbarium in Zimbabwe has been involved in plant research since the colonial period. A survey in the National Botanical Gardens and Ewanrigg Gardens in Harare showed that various indigenous medicinal plants have been propagated and cultivated for purposes of preservation. This also means that their medicinal uses are recorded and available to researchers.

The efforts at collaboration between the Western medical system and the indigenous medical systems as well as the State's interest in IMK has meant that research initiatives have been undertaken at various levels. Although not satisfactory, these research initiatives and efforts at collaboration indicate that there is some movement regarding the way in which IMK is held and used in Zimbabwe. The fact that a lot of the medicinal plant remedies have been recorded already means that some IMK is already exposed and efforts at reaching solutions must take this into account. If for example, a mechanism for protecting IMK is based on the impression that IMK is still exclusively held by IMPs this will lead to a partial solution that fails to take into account the reality that such knowledge is already recorded and documented elsewhere. Indeed some respondents among IMPs were unaware that a lot of the knowledge that they claim to hold exclusively is already recorded through previous research efforts. Researchers at the University of

communities" African Church Information Service 14 October 2003.

³⁰⁹ As Chasokela points out, "... traditional medicine in Zimbabwe and the knowledge of medicinal herbs is not the preserve of traditional healers and herbalists alone but rather is common knowledge among some

Zimbabwe continue these relationships with IMPs and this means that what is thought to be secretly held by others is continually getting documented through research elsewhere.

Therefore, it is quite clear that there are certain common misconceptions relating to Indigenous Peoples and IMK systems generally which are based on the idealised pictures. A proposition to solve the problems that is blindly based on these impressions is bound to miss the target. Often these misconceptions are held because there is inadequate field research to discover what exactly takes place in indigenous communities. IKS are not systems of antiquity but are continually evolving with time. Similarly Indigenous communities have not remained static but also move with the changing times and are subject to internal as well as external influences. Thus the image of closed communities living exclusively by and according to their old ways and free from any external influences is misleading in some communities. As more Indigenous communities have been integrated into the mainstream society or at least live according to the dictates of the mainstream, they have had to adapt. In so doing their way of life and some conceptions have changed. In conclusion, any solutions to their problems will have take into account these realities on the ground if they are to be effective and useful.

9.5 ASSESSING THE NEEDS OF THE INDIGENOUS PEOPLES

The idea that it is necessary to fill the void in the legal protection of IMK systems is commonly held (Blakeney 1999; Adewapo 2002; Kuruk 1999; Drahos 2000). It arises

members of society who have an interest in the area." in **"Traditional Medicine's Industrial Potential"**
The Business Tribune 28 May 2004

from the finding that the current IP law system that is commonly used for knowledge protection is not quite suitable for the protection of a different and unique system of knowledge such as IMK. Consequently, the need to reframe the legal architecture at national levels to protect IMK is widely acknowledged. Curiously, the need for such a change of protective mechanism at international levels has not been forcefully argued with many confining themselves to the proposition of national *sui generis* systems (Kuruk 1999; Chitsike 2000). This study concludes that greater commitment to protecting IMK is also necessary at the international level. This thesis has shown how the international legal regime has strengthened the IP law system that suits the requirements of the WSK systems while on the other hand it may actually have negative effects on IMK systems and the rights of its holders.

However the approach propagated in this study is that having identified the problems facing IMK systems, it is necessary to understand the reasons for the Indigenous Peoples' claims for protection of their knowledge systems. In order to formulate a proper system for protecting the rights of IMK holders, it is necessary to establish the needs of the Indigenous Peoples. In order to create useful and workable solutions policymakers and reformers must be clear about the needs of the Indigenous Peoples. The next part demonstrates the reasons for IMK protection from the viewpoint of the indigenous communities.

9.5.1 REASONS FOR THE PROTECTION OF IMK

This is essentially an exercise in discovering the motivations behind their calls for protection of their knowledge systems. The fieldwork findings have indicated that the reasons can be categorised into social, cultural and economic considerations. These will be summarised below.

9.5.1.1 SOCIO-CULTURAL CONCERNS

i. CULTURAL INTEGRITY

Indigenous Peoples regard the knowledge that they hold as part of their cultural heritage. IKS are diverse and include such aspects as music, dance, art, designs, artefacts, spiritual knowledge, medical knowledge, sacred sites, agricultural techniques and plant/animal breeding, etc. External influence arising dominantly from the entry of Western communities in the 19th Century has had impact on the cultural aspects of the traditional communities. While communities have largely kept their systems they have also adapted to meet the changing circumstances. There is still scepticism about external forces that erode their cultural base. In particular the exploitation of IMK is seen as part of the cultural colonisation that violates cultural values and disrupts their traditional systems.

Consequently, they demand protection of their knowledge systems on grounds of cultural integrity. In addition, the Indigenous Peoples view some aspects of knowledge as sacred and beyond desecration. In respect of indigenous plants of medicinal value for example they want certain customs and ethics to be followed when they interact with the non-

Indigenous researchers as a matter of culture. Some sites and areas such as *Njelele* in the *Matopos* Hills, *Nharira* Hills in Zimbabwe have immense religious significance for the local communities and would need their cultural tenets to be respected (Ranger 2000).

ii. DIGNITY

Additionally there is a desire to stand for and prove their dignity. As indicated in the Struggle Thesis, Indigenous Peoples were treated with contempt and marginalised during the colonial period. Other than being regarded as primitive, they were considered to be uncivilised and could therefore not produce knowledge. Thus wherever Europeans went in indigenous territories, they claimed to have “discovered” something. It was “discovery” because it was not known within the WKS regardless of the fact that it was already common knowledge within the IKS. In other terms, what was known in the indigenous communities was not considered as knowledge in the WKS.

This had negative implications on the Indigenous Peoples who already lived in those territories according to their own ways and had already discovered these things before. In this context, Indigenous Peoples have always been keen to prove that contrary to the old images they in fact exist and have immense knowledge of their world. Therefore it is not only demeaning when someone claims to have “discovered” a medicine when in fact they already knew of it before and in fact supplied the primary knowledge to that person. As a matter of human dignity, they want their contribution to human knowledge to be acknowledged and recognised. It is part of their “struggle” from the periphery to be

recognised as contributors to knowledge. It is not the West that is the sole source of all knowledge but they are also a source of knowledge and that should be accepted hence the need for protection from wanton disregard of what they regard as rightfully theirs.

9.5.1.2 ECONOMIC INTERESTS

Indigenous Peoples have become aware that while their contributions to research and knowledge development have not been acknowledged they have also not been awarded the economic benefits that are produced. While IMK has been used to produce useful drugs and food supplements by the pharmaceutical and food industries they have not derived any benefits from it. Instead, the researchers who have used knowledge from Indigenous Peoples have published work and received recognition and resulting economic benefits. On the other hand the Indigenous Peoples have received very little if any, economic rewards. The fieldwork findings indicate that they are angry about a system that rewards the end users of their knowledge but ignores the original source.

In short, Indigenous Peoples realise the economic potential of their knowledge systems and how others are exploiting that capacity at their expense. Findings indicate quite clearly that Indigenous Peoples do expect some of that economic potential to benefit them and the proceeds to flow to their areas as well. Most communities are now surviving in the mainstream socio-economic framework, which places economic demands upon them. The economic returns from the use of their knowledge could prove to be a source

of useful income for these societies as they struggle to survive in mainstream society. There is a moral obligation to have fair and equitable sharing of the economic benefits.

9.5.1.3 ECOLOGICAL PROTECTION AND SUSTAINABLE DEVELOPMENT

As noted in the fieldwork findings IKS are part of the general system of environmental management in indigenous territories. This is because for example, IMK relies heavily on the existence of plants and animals. In the days when they lived exclusively they were able to implement their own policies through certain practices and customs that were essential for protecting the species that they needed. For instance the taboo system was maintained to ensure that certain species of plants and animals were protected. Cultural beliefs played a major part in maintaining the efficacy of the taboo system.

However due to the external impact through colonialism, territories were expropriated and the Indigenous Peoples were pushed to marginal reserves. Some of the species were not found in those areas and consequently IMK was lost over generations as they could not teach information about species that were non-existent. The species that were available were put under immense pressure due to over-use and deforestation. The dearth of species leads to the dearth of knowledge systems because if they do not exist, they will be out of use and over time, there will be erosion of the knowledge system. Thus the symbiotic relationship between ecological diversity and IMK is being severely tested by the pressure on resources. Commercial harvesting of plant and animal species is negatively affecting the balance. Therefore linked to exploitation of IMK is also the

exploitation of ecological species, which ultimately threaten the existence of the knowledge system in the long run. In a nutshell, Indigenous Peoples would want to keep their knowledge system because it is an integral part of environmental protection and they would also like to protect the ecological diversity because it sustains their knowledge system. The protection of IMK generates incentives for local communities to conserve the environment and manage bio-diversity.

9.5.1.4 SELF-DETERMINATION

The fight for self-determination has been at the centre of many struggles of Indigenous Peoples. It was that desire that sustained the struggles for political independence in many African, Asian and Latin American countries that were under the yoke of colonialism. It is also the same desire that fuels the struggles for self determination in countries like Australia, USA, Canada and other Latin American countries where some Indigenous Peoples have remained minorities in their former territories.

In the case of knowledge systems, Indigenous Peoples seek protection of their right to self-determination as far as the use and application of their knowledge is concerned. They require the platform and mechanisms to be able to deal with their knowledge systems as they please, without the constraints of bureaucracy that often leaves them out of the process. They want to be consulted about the use of the knowledge and local resources and they want to be given the right to consent or reject any proposals regarding their knowledge. That decision should not be the prerogative of some external individual but

of the community or its chosen representatives. In short, they want to be participants and not mere objects or listeners in the making of decisions regarding the use of their knowledge.

This is the summation of the reasons for the protection of knowledge in indigenous communities as revealed in the research process in Zimbabwe. It is suggested that when making policies for the formulation of mechanisms for the protection of IMK these concerns must be taken into account. A proposal that fails to take them into consideration will fail to meet the needs of the indigenous communities. In the end it will either be rejected or will fail to have the necessary effect and will become redundant. Similarly, a proposal that accounts for only one of the reasons at the expense of the others will also fail to have the desired effect.

9.6 CONCLUSION

In conclusion, this chapter has picked up the relevant aspects arising from the fieldwork findings and the socio-historical analysis that should be taken into prime consideration in formulating the policies for protection of IMK systems. It summarised the common problems faced by Indigenous Peoples in relation to their IMK and also highlighted some common misconceptions arising in this field. The principal aim of this demystification is to urge an approach that focuses on the reality without being clouded by idealistic conceptions about Indigenous Peoples and their knowledge systems. In the same way that IMK systems change over time, the indigenous communities are not static and these

changes must be taken into account to avoid erroneous attachment to the romanticised picture of the indigenous communities. In pursuit of the same theme this chapter has also highlighted the bases for the claims for protection of knowledge among Indigenous Peoples. This study has shown that the reasons for protection are not confined to the cultural aspects but also cover the economic interests of the communities. These aspects are significant because the policies for building solutions will be based on the realistic background of the communities. The concluding chapter will demonstrate the ideas and policies that can be pursued to achieve this target.

CHAPTER 10

CONCLUSIONS AND RECOMMENDATIONS

10.1 INTRODUCTION

As the study enters the conclusive stage this chapter builds on the foundation of the needs and expectations laid down in the preceding chapter. It rounds off arguments discussed in this study and lays down the principles and values that should underpin the policies and strategies formulated for the protection of rights to IMK systems. It advocates the resolution of the struggle between the knowledge systems and their respective holders and argues for the resolution of the “Struggle Thesis” developed in this study. The main key is to restore the validity and legitimacy of IKS within the realm of global knowledge.

The crucial element at the centre of the current problems is research which is the main point of contact between the knowledge systems and the main challenge is to ensure that this process is re-modeled and regulated to take into account the interests of the Indigenous Peoples. In addition to changes to the legal framework, it is necessary to change the general socio-political and economic structures within which the Indigenous Peoples and IMK systems are currently located. This involves, *inter alia* changes in the thinking, attitudes and perceptions about IMK systems and power relations regarding indigenous communities. There is need for a thorough overhaul of the social fabric and economic structures to ensure that the conditions of Indigenous Peoples are improved and the status of IMK systems is recognised. In fact, the creation of legal rights is not

conclusive as it requires political will to ensure that the system actually produces positive impact and is effective.

10.2 RECONSTRUCTING RESEARCH IN INDIGENOUS COMMUNITIES

As the connecting nexus between the WSK and the IMK systems, research is the site of the struggles between the two systems and the respective holders. The manner in which research has been conducted and the way in which the results and benefits of research have been allocated have produced tensions that characterise the dialectical relationship between the two knowledge systems.

One conclusion from the field research in Zimbabwe is that the Indigenous Peoples are not necessarily opposed to research in principle. Indeed, for many years they have been pushing for collaboration in their struggle to demonstrate and establish the validity and legitimacy of their knowledge system. The crucial aspect is that despite the denial of its legitimacy and validity, research into the local knowledge systems has been taking place since the encounter between the Indigenous and Non-Indigenous Peoples. The lack of acknowledgement of its legitimacy and inequitable allocation of benefits in the face of the continued research is chiefly responsible for the Indigenous Peoples' mistrust of the whole process and their claims for means by which their rights can be protected.

This study has concluded that the contact between IMK and the WSK is unavoidable. Bhola (2003) echoes this view, pointing out that the contact and interaction is inevitable.

While hostilities have characterised the encounters between WSK and IMK the possibilities of collaborative connection have also been observed. This contact between the systems has ensured that there has been continual, if slow integration. The integration has however been characterised by the extension of the WSK system without necessarily the acknowledgement of the contribution of the IMK system and this study has established that this is one of the major areas of contention between researchers and indigenous communities. It is arguable that while IMK is important for the Indigenous Peoples both culturally and for developmental purposes, by itself it may not be sufficient in the light of pressures for integration. Indigenous Peoples are no longer living in isolation but are inextricably linked to and participants in the socio-economic life in the country. The demands that such participation places on them means that they have to develop systems to be able to survive. The same cause that drove the Indigenous Peoples to innovate in order to survive within their local environments can be adapted to apply in the new environment which is no longer closed and exclusive but presents new challenges. Under the circumstances, the protection of IMK is not an end in itself but ought to be seen as a means to achieve some beneficial results for the Indigenous Peoples.

The dissemination of the results of research has affected the efficacy of the ways by which the Indigenous Peoples traditionally hold and protect their knowledge within their communities. This is particularly because of the way in which research has been published thus exposing hitherto secretly held knowledge to the general public beyond the confines of the community. This implies that some of the means by which the

Indigenous Peoples protected their knowledge may no longer have the same efficacy they had within their strict territorial and traditional confines. Meanwhile, the process of globalisation has led to increasing interaction and integration between people and their knowledge systems in different parts of the world. The new technologies within the WKS make it easier to gain access, retrieve and store information. Is it possible to stop the process of contact between the knowledge systems?

It seems unlikely that this process can be stopped given the fact that a lot of IMK in Zimbabwe and other indigenous communities has already been published and is therefore easily available to wide readership across the world. Given these developments it is highly probable that in some cases researchers have reached a point where they have direct access to the IMK system without necessarily consulting the IMPs or communities. Indeed the fact that the general public, IMPs and ZINATHA itself are actively engaged in the marketing and selling of drugs developed from the IMK system means that researchers can easily access the medical knowledge for research purposes. The interaction is therefore taking place in several ways although arguably under unfair conditions from the perspective of the communities. Arguably the major challenge is to control and regulate this interactive process in order to establish a system that distributes benefits fairly between the stakeholders.

As Bhola aptly puts it, “the challenge before us is really not to save the Indigenous from the Modern (which is an impossibility) but to organise a dialectic that is neither cannibalistic nor exploitative, but mutually enriching” (2003: 10). It is necessary to

recognise the gravity of history and develop fresh perspectives on IMK systems with a view to recognising their status as valid and legitimate knowledge systems. The historical processes that have shaped the encounter have ensured that the WSK systems are at an advantage in the struggle and currently hold a monopoly as to what counts as valid knowledge.

The socio-historical exploration of the encounter and relationships between IMK and WSK and in relation to the modern state have indicated that the IMK systems have long been sidelined and arguably this accounts for their poor position and vulnerability in the present circumstances. In addition, the exploration of the international political economy of knowledge protection has shown that the major determinants of what counts as knowledge remain largely the western industrialised nations and the attendant knowledge systems. Consequently, the prevailing international legal regime for knowledge protection privileges the WSK at the expense of the IMK that remain largely vulnerable.

This study has also augmented the view that the current IP law system fails to adequately protect IKS at two major levels. Firstly at the technical or conceptual level, the philosophy behind and the structure of the IP law system means that several aspects of the IKS do not fit well into the present crop of IP rights. This leaves the IKS vulnerable since when considered through the lens of the IP law system they end up being categorised as part of the public domain. Secondly, at the operational level, the complexity and expense attendant on the current IP law system mean that it is a protection mechanism that is largely inaccessible to the majority of the Indigenous

Peoples. Ultimately the current international regime for knowledge protection fails to adequately cater for the needs of the Indigenous Peoples and their systems of knowledge. Under these circumstances it is necessary that the reforms take place not only at the national level but also at the international level in order to enhance the status of IKS generally by comprehensively reconstructing the systems that have undermined the status of IKS.

The main challenge is to regenerate and re-organise IMK in order to meet the transformed circumstances. The idea is not to dismiss the WSK systems or ideas or even to detach the IMK from the WSK because the historical encounter and continuing interactive processes make such an effort futile. The interaction must be made more fair and equitable. A significant observation is that when the WSK system picks and uses aspects of the IMK system through research it signifies a validation of those selected aspects. It is an acceptance and validation of the IMK system by use of the modern scientific methods. The fact that other aspects of the IMK systems may not fit the framework of WSK systems should not necessarily entail that they are irrelevant or useless. The rejection may only be because the WSK systems have not developed sufficient methods to appreciate and accept the validity of those aspects of the IMK systems. The principle of diversity of knowledge requires that all knowledge systems are accepted and recognised for what they are.

The main interest is about what happens to those aspects that are accepted and used within the WSK systems. In that case there should be fair treatment, recognition and

acknowledgement of the contributors and compensation. For these purposes there are two points worth highlighting:

- i. Recognition of knowledge systems in their own right as valid and legitimate and
- ii. Recognition and Compensation for what is extracted and used by another system.

Drahos (2000) has helpfully pointed out that the seeds of distrust sown between the Indigenous Peoples and corporate institutions involved in research make it very hard to conduct any constructive interactions and this has led to losses on both sides. More than that however, under current conditions the Indigenous Peoples stand to lose more. This is because large parts of their knowledge systems in the medical field have already been exposed through research and the researchers have easy access to that knowledge.

However, the indigenous groups may still control the process and get some rewards because they still have some control over their biological resources. A system of protection that takes into account the knowledge and biological resources together will be more useful. The current scenario is more favourable to corporations who can access the knowledge and resources through the unregulated and imperfect market while the Indigenous Peoples get nothing or very little of what their knowledge is worth. In the long run however, as the knowledge holders become more restrictive and evasive the corporations may lose out as they will fail to access the knowledge that is still locked within the indigenous structures. The solution is to accept that there is that interaction and to control it by regulating the way in which it is conducted.

10.3 REFLECTIONS AND PROPOSITIONS FOR POLICY FORMULATION

The political and socio-economic changes that have taken place since the advent of colonial rule in indigenous communities have meant that traditional lifestyles have been fundamentally altered. In order to meet the new demands to survive in that system they need certain economic resources. While they need to uphold and maintain their cultural values, they also need to create assets and obtain economic value from those assets. Already by trying to do internal research and marketing their traditional drugs, ZINATHA and its members are in the process of trying to create these assets to meet the modern market requirements as well as demonstrating validity and legitimacy. This study argues and concludes that the medicinal knowledge and biological resources in indigenous territories are some of those potentially valuable assets.

The fact that they have been collaborating with researchers whenever they got opportunities shows their willingness to work together and contribute their knowledge. Arguably, what is needed is a means of empowering them to become stronger players in the market to enable them to use and trade their knowledge for fair and equitable gain taking into account the requirements of their social and cultural context. This involves improving the socio-economic conditions of the indigenous communities. It is for that reason that this study advocates for the creation of a system that enables them to gain benefits from the use of their knowledge.

10.4 CREATING AN ENABLING SYSTEM

The IMK system is testimony to the view that there exists so much talent, skill and valuable assets in indigenous communities and Developing countries. Given the cultural and economic value being generated from the use of IMK to create medicinal drugs, it is an invaluable asset to indigenous communities. There is a correlation between the cultural and economic aspects since it is likely that people will follow tradition and culture if their assets are bringing recognisable economic value. Similarly the economic potential can be enhanced by the cultural value attaching to the assets. Nonetheless, while the communities possess these potentially valuable assets they have not been able to gain maximum value that reflects the true potential.

As the Struggle Thesis has shown, the Indigenous Peoples are in the periphery and have been ignored by the mainstream to the extent that no suitable system has been developed for them to exercise their rights to gain maximum value from their assets. Despite being in the market IMK is being traded for poor value and on unfair terms. The question from an economic perspective is how this can be improved and from a social justice perspective is how the Indigenous Peoples can be treated fairly and equitably. The resolution of these issues has an impact on the cultural integrity of the IMK systems and values within the communities.

10.4.1 REGULATING THE EXTRA-LEGAL MARKET

It is helpful to refer to De Soto (2000) who refers to this market for trading assets beyond the official or legal market as the “extra-legal market”. The problem in this market is that the rights to the assets are not properly recorded and cannot be well defined beyond their specific local confines. The formal legal systems do not recognise the assets. The Indigenous Peoples have maintained their own mechanisms for protecting and transferring knowledge but these mechanisms operate efficiently within their own traditional confines. When people less acquainted with the local system enter the scene, the local systems often fail to control them and this produces imperfect results. Therefore, there is an extra-legal market where knowledge and resources are traded but because of the lack of proper control and rules this is taking place on terms that are unfair and inequitable on the part of the indigenous communities.

A major failure of the current systems is that the needs and interests of the Indigenous Peoples have not been taken into account. Therefore although it may be argued that patents can protect certain aspects of IMK systems, the reality is that Indigenous Peoples do not use the system because of practical factors that render it inaccessible. It is inaccessible because of the costs and complexities that work as operational impediments. Such operational impediments cause people to retreat to the system that they create to trade their assets because it is cheaper. The downside is that the informal system does not adequately protect their interests.

The existence of these local social contracts has been identified in the field research. In formulating policies and laws it is vital to realise that there is no vacuum in the

organisational structures of the indigenous communities but that there are systems in place. Therefore what is required is not a fresh law from elsewhere but to build on those social contracts and structures by understanding the “beliefs, desires, intentions, customs and rules” of the community (De Soto 2000: 164). This is not about constructing brilliant laws on paper but making norms rooted in the people’s beliefs and customs. Such a system will stand a good chance of being obeyed and followed. The idea is to get into the field to observe and listen to the local conventions and understand how and why they work³¹⁰. These social arrangements are the lived realities of local peoples’ experiences and since they have created the basic structures they are more likely to recognise and enforce them.

As argued in Chapter 9, there is a need to dispel the myth that Indigenous Peoples have no conception of property or economic interest in their knowledge systems. People do own and possess things through their local social contracts. Since it has been identified that the protection of knowledge is also motivated by economic considerations it is necessary to ensure that the economic interests of Indigenous Peoples are also taken into account when formulating the legislation.

10.4.2 RECOGNITION OF TITLE TO KNOWLEDGE: CREATING RIGHTS TO INDIGENOUS ASSETS

³¹⁰ That is why this study identifies the WIPO Fact-Finding Missions as good starting points in understanding the local situation of the Indigenous Peoples in relation to their knowledge systems.

The argument that arises from the foregoing is that the assets of the Indigenous Peoples must be protected by a rights-based system that addresses the socio-cultural and economic needs of Indigenous Peoples. The idea that there was no entitlement to assets in indigenous communities has already been dispelled as a misconception. That there were elaborate systems and mechanisms by which the locals used and transferred knowledge between and among themselves has now been firmly established. The important step is to recognise those local systems by which people deal with and claim entitlement to their knowledge. Consequently one can begin to accept that such knowledge actually belongs to certain people whose contribution needs to be acknowledged and rewarded whenever it is used. The ultimate challenge of reform is to create appropriate instruments for securing rights and interests of indigenous communities.

A key point is the creation of rights to knowledge upon which they can fix value in order to facilitate the trade on a fair basis. The rights may be classified within the confines of "property" that account for the realisation of both individual and community interests and duties. It would for example be appropriate to consider the establishment of collective rights in addition to individual rights where appropriate. The important thing is that indigenous communities already have these structures by which either individual or collective interests can be recognised. The social recognition of the claim gives legitimacy to the rights and the system. The law only serves to recognise the legitimacy of the right and to facilitate its enforcement within the formal legal system. At present the indigenous communities are handicapped because they cannot easily enforce their rights within the formal legal system due to the lack of the legal instruments.

This process of formalising entitlement systems is not unique. As De Soto (2000) argues that is also how systems of property in Western Europe developed over centuries. They developed from informal structures of quasi-legal relations and took into account the usages and customs of the people. Therefore it is necessary to ensure that the system which recognises that one or a group of people are entitled to a particular asset develops out of the needs and usages of the people. As demonstrated in Chapters 8 and 9 it is quite possible to identify the rights of a person or a group of persons in relation to others when communities are properly studied and consulted. Those local representations of entitlements need to be gathered and recognised by the integrated national legal system.

The work of the World Intellectual Property Organisation (WIPO) is therefore commendable at the international level because it is investigating the traditional systems in respect of IKS that apply within and across communities. This is a valid first step but for effectiveness it must be comprehensive and needs to be carried out at the national level. Lawyers and lawmakers need to take a careful look at the people's laws and practices and construct an indigenous system of law that takes into account their needs, principles and ethics. This study strongly recommends the development of a system of rules based on the traditional values and needs of the communities. Regrettably, as De Soto (2000) clearly points out lawyers, like Western trained medical practitioners are "too busy studying Western law ...they have been taught that local practices are not genuine law, but a romantic area of study best left to folklorists". Policy makers operate

on the same mode and fail to appreciate that before the spread of Western laws, the indigenous communities actually had their own systems of organisation and regulation.

The state can play a crucial role by creating the rights-based system that entitles those with specialist knowledge to claim their entitlements to that knowledge subject to the requirement that part of the benefits should accrue to the community in recognition of custom and tradition. Society already recognises that for example, IMPs are entitled to benefit from the knowledge that they hold and also tradition requires that the IMP recognise that he is a mere custodian of the knowledge that is actually a common heritage and proceeds must be shared with the community. It is possible to identify the relevant holders of knowledge or the relevant structures through which benefits can be distributed in local communities.

In Zimbabwe, the association of IMPs ZINATHA already holds a comprehensive database of IMPs and their specialist areas. The local communities and IMPs themselves are aware of who has specialist knowledge and the areas where particular knowledge originates. The fact that the community benefits from the proceeds also means that they will have an incentive to protect the ecological species that are necessary and therefore they are participants in the process. In order to ensure that IMPs are not unfairly treated, the system of collaborative research needs to be formalised and guided by proper legal procedures. The way in which an IMP and a scientist relate must be guided by a comprehensive system that recognises tradition and fair play. This requires input from the people involved and understanding of their needs. Also it is necessary to simplify the

system and make it cost-effective – for example payments for registration of rights can accrue depending on the success of the development of the product. When the system is cheaper, simpler and less bureaucratic it may avoid the pitfalls of the IP law system, which as established, is complex, expensive and inaccessible to the people that need to use it.

10.5 REGULATING RESEARCH AND RECOGNITION OF KEY PRINCIPLES

In addition to the recognition of legal entitlements, the other crucial element to resolving the struggle is to regulate research, which is the source of the conflict. The creation of rights as advocated in the last section may do nothing to actually stop the process by which the indigenous communities are being unfairly treated under the current system.

In Zimbabwe local research has been hampered by the lack of resources. It is principally because the state does not realise the capacity of its people and there is insufficient political will to solve the problems. The Scientific and Industrial Research Development Council (SIRDC) which is responsible for development of science and technology in Zimbabwe should recognise the potential of local knowledge systems and work with communities to harness the knowledge. At present due to the dominance of WSK, organisations like SIRDC are busy trying to duplicate the efforts of scientific institutes in Europe and America thus neglecting the local knowledge systems despite the potential they possess. Their active involvement would introduce resources and eliminate the problem of having to rely on foreign organisations and the consequent problems. What is

needed is a process that recovers and establishes this value and assists in the development of this process according the rights that the holders of knowledge deserve.

Nonetheless it is important to accept and recognise the reality that for historical reasons research is a process that is inevitable as a contact point between the knowledge systems. It is therefore fundamental to recreate the image of research in indigenous communities. It is important from both a socio-cultural and legal perspective to recognise and adhere to certain principles upon which a relevant legal framework for research ought to be constructed. The following are some important principles that must be developed and recognised:

10.5.1 THE PRINCIPLE OF LEGITIMACY AND VALIDITY

This principle requires the recognition of the legitimacy and validity of IMK as a knowledge system. There is need to reassert the legitimacy of the knowledge systems that have been marginalised for a long time. In order to justify protection the knowledge system must be accepted as valid and legitimate. The Struggle Thesis has demonstrated that the reason that IMK has been unprotected as the official level is that it was never accepted as a legitimate and valid knowledge system. The recognition of this principle in respect of IMK would mark an important milestone in the struggle to regain acceptance. This principle should apply at both national and international levels. It will be important for purposes of transforming the general social structures that have historically undermined the status of IMK systems.

10.5.2 THE PRINCIPLE OF CULTURAL INTEGRITY

This is the principle that the legal framework and any transactions that are carried out in respect of IMK systems must respect the cultural integrity and values of the Indigenous Peoples. This follows that research that must be sanctioned by the relevant individuals or communities. Any rituals or ceremonies must be carried out in accordance with custom and tradition. There are sites that are of religious significance that must be respected. Certain plants are also considered sacred and the traditional customs must be followed before they are extracted. People that fail to comply with the cultural rules must be punished or pay the necessary compensation under the traditional laws. The traditional systems have the mechanisms for disciplining people that violate traditional norms and customs and these can be used as foundations for creating and taking legal measures.

10.5.3 THE PRINCIPLE OF PRIOR INFORMED CONSENT AND PARTICIPATORY INVOLVEMENT

This means that in any research transaction there must be prior informed consent by the indigenous community or relevant individual.³¹¹ This calls for a full explanation and understanding of the research aims and process to the indigenous communities before anything takes place. Indigenous Peoples have their traditions and ways by which they can seek and get consent whenever decisions of that nature are required. This principle of Prior Informed Consent is consistent with the principle of participatory involvement. The

necessary processes for obtaining such consent must be followed. This is not just consent of the state but also that of the community, which is identified as the source of the knowledge or the biological resources that are used for the experimentation and drug development. While the CBD confers rights over biological resources to the state, it is necessary that any state legislation must pursue a policy of seeking the actual consent of the local community whose knowledge and resources are sought.

This principle recognises that in any research process the Indigenous Peoples must be accorded their status as equal partners and should be involved actively rather than as objects of research. The state should prohibit and punish any research that takes place without the consent or acknowledgement of the role of the traditional authorities and communities. Although the new Environmental Management Act in Zimbabwe attempts to regulate the access to and use of biological resources in the country, the law does not give priority to the communities. Instead the state is substituted for the communities and there is no guarantee for the state to seek the consent of or to distribute the benefits to the particular communities or individuals. For these purposes, the main representative association of custodians of IMK, ZINATHA, can be the authority through which participation can be sanctioned and authorised. It also means that the work of the indigenous community will be properly acknowledged. They will be included in the documentation and anything that deals with the use of their knowledge.

10.5.4 PRINCIPLE OF FAIR AND EQUITABLE SHARING OF BENEFITS

³¹¹ This is fully endorsed by the CBD's Article 8 (j)

This principle means that the benefits accruing from the research into indigenous medicines must be shared equitably with the Indigenous Communities³¹². If the principle of prior informed consent and that of participatory involvement have been put into effect, it should be easy to apply this principle in practice. The material benefits must devolve to the relevant community and as fieldwork has shown, there are systems for sharing and distributing benefits of that nature in the communities. The institutional structures are already available through the Traditional Medical Council, ZINATHA and its network of branches across the country. This can be combined with the informal traditional structures in local communities. ZINATHA can therefore also be involved at the centre of the system and this will have the advantage of increasing the incentive to participate in the organisation and therefore enhance widespread protection on a national basis. It is not for the state to share the benefits, but the communities can do it themselves. The state can however provide the necessary infrastructure and facilities³¹³.

Finally, in order to ensure the success of the system, it is necessary for the state to improve local research capacity so that the involvement of foreign organisations is kept to a minimum. Field research has shown that local scientists in Zimbabwe are willing and have the ability but they lack the resources to sustain their efforts. The result is that they have to resort to external organisations for funding and equipment³¹⁴. Consequently, they subject themselves to terms that appear unfair as they exclude other relevant parties. The

³¹² Also refer to Article 8(j) of the CBD

³¹³ Indeed although the Environmental Management Act gives power to the state, it fails to recognise the importance of particular communities or interest groups for purposes of benefit sharing.

³¹⁴ As Chasokela has aptly pointed out, "The other problem is the incapacity of our scientists who are good at investigating phenomena but lack marketing strategies to successfully transfer their findings into commercial products. As a result of failure to market their results the ideas have been poached from them

issue of international bio-piracy or theft of knowledge arises because the local researchers and IMPs have to rely on the foreigners and the transactions are carried out in a system where there are no rules or protective mechanisms.

The indigenous communities appear to be more comfortable with local scientists and there is evidence of collaborative research³¹⁵. They have only become sceptical by the presence of foreign organisations and they now see the local researchers as mere fronts for external interests. If the state were to realise the potential, it could provide the institutional and financial support while also safeguarding the cultural and economic interests of the Indigenous Peoples. There is nothing inherently wrong with research except the unfair ways by which the process has been conducted in indigenous communities. The recognition of the above principles may help to ensure that the legal framework would cater for the socio-cultural and economic interests of the Indigenous Peoples of Zimbabwe.

10.6 COMPREHENSIVE OVERHAUL: ADDRESSING THE NON-LEGAL LANDSCAPE

One key part of the Struggle Thesis is that the vulnerability of IMK generally is an historical product of various external influences other than the law. Indeed the law is only

and adopted by big medical companies in Europe" in "**Traditional Medicine's Industrial Potential**" The Business Tribune 28 May 2003.

³¹⁵ Chasokela (ibid.) " the collaborative research between the University of Zimbabwe and ZINATHA has resulted I the production of a mixture of medicinal herbs, which has demonstrated capacity to lower the viral load of HIV while at the same time improving the CD4/CD8 ratio in [AIDS] patients" She also points out that despite the recognition of ZINATHA the government has failed to provide it with relevant infrastructure and financial support to officially develop its role in health systems.

one of the tools that have been used to undermine IMK systems. This leads to the conclusion that the enactment of a law *per se* will not necessarily change the circumstances of IMK systems. This suggests that more is needed in order to overcome the various problems uncovered in this study. In addition to the contemplated legal changes, it is necessary to reconstruct the non-legal structures that continue to undermine the status and legitimacy of the IMK systems.

10.6.1 RESTORATION OF THE STATUS OF IMK

The restoration of the status of the IMK systems as a valid and legitimate system of knowledge has already been suggested in the discussion of the principle that should guide research. The issue is not about a comparison between IMK and WSK but simply according IMK recognition in its own right. The fact that IMK is being widely sought should support the cause for recognition as a valid and legitimate body of knowledge. The practice of trying to validate it from the perspective of WSK undermines its claims as a self-standing body of knowledge.

It is therefore important to restore IMK to its status as a valid and legitimate body of knowledge that deserves protection. One key implication of this is that for example when the patent system is in operation, IMK can also be properly considered as a legitimate body of knowledge which must be considered as prior art for purposes of assessing elements such as novelty and non-obviousness. The fact that it is not in written form should not necessarily disadvantage IMK because it will be accepted that knowledge can

be recorded and recognised in diverse forms. It will give a stronger option to holders of IMK to challenge bad patents that have been obtained contrary to the prior existence of knowledge from another part of the world or more positively it will spur others to acknowledge the contributions of Indigenous Peoples.

The restoration of the status IMK not an event but a process that must be carefully nurtured and could take many years as a number of social and psychological barriers have to be overcome. It will require the removal of long-standing negative representations of IMK. This may require considerable changes in the education systems in order to take into account aspects of IKS generally and IMK in particular. There have already been good precedents in other regions. In New Zealand the movement towards the restoration of indigenous culture and tradition has gathered pace over the years and the use of *Maori* language is quite active and widespread (Tuhiwai-Smith 1999). However for as long as the social structures are constructed in such a way that everything indigenous is ridiculed and marginalised attitudes will not change and consequently the efficacy of legal changes will be minimal. The IKS generally will continue to be seen in the periphery. Many people in Africa recognise and use the indigenous medical system but few are keen to publicly acknowledge it due to the negative images portrayed. People will have to regain confidence but that begins by the dismantling of the structures that made it appear so inferior and primitive. The education system must in addition to the focus on WKS be re-oriented to take into account aspects of IKS to reflect the values and developments in indigenous communities.

10.6.2 PROTECTION OF LANGUAGE AND CULTURE

The Struggle Thesis has shown that the undermining of languages is part of the means that were used to marginalise IMK over the years. The close relationship between indigenous languages and IMK has been established³¹⁶. Language is important in the development of knowledge because it is the medium of communication of ideas, thoughts and beliefs especially in an oral-based system. Language is therefore an important part in the storage and communication of IMK from one generation another. Coombe (2001) echoes this view when she states that contemporary linguistic studies demonstrate that traditional knowledge disappears with the disappearance of languages. Invariably, the death of the languages in indigenous territories takes away valuable knowledge developed through generations. Therefore, it is important to protect indigenous languages to ensure that indigenous knowledge is also conserved. So in places where the indigenous pupils are forced to speak the English or French language and beaten up when they speak the indigenous language at school, the process must address the use and proliferation of indigenous languages.

A key goal must be to ensure that there are better ways to encourage and establish the connection between linguistic diversity and biological diversity. This includes encouraging and protecting linguistic human rights and promoting education policies that ensure the use and survival of languages. There has also been a growth of the relevance of linguistic human rights as one of the key issues for the protection of linguistic

³¹⁶ There is need for more detailed research to discover the detailed connections between language and environmental diversity.

diversity. There is need for more funding to promote language revitalisation programmes that are initiated or led by the indigenous communities themselves³¹⁷. One of the key strategies is to document and record languages and also to promote its use in everyday life. It is also important to revitalise linguistics as an academic discipline "and conferring it new relevance within and beyond academia" (Maffi 2002: 387). The key is not simply to preserve language in texts but to promote its conservation *in situ* by promoting its use and development within the relevant contexts.

Although the international context is an important platform, the key is at the level of the nation state. As Maffi says, "individual countries at best pay lip service to linguistic human rights but do not adequately implement them - particularly in terms of providing opportunities for education in indigenous and minority languages" (2002: 390) Some even provide arguments for example the diversity in languages threatens national unity. The education system was very influential in sidelining the local languages in colonial Zimbabwe. In the post-colonial set-up there has been no significant change in the status of indigenous languages. The English Language remains the official language in the country and the dominance of English is reflected in the education and employment arena. While it is compulsory to study the indigenous languages at primary school level, it is optional at higher levels though English remains compulsory. While it is important to study one of the dominant international languages, it is equally vital to ensure that people have choice and that indigenous languages receive equal status.

³¹⁷ Maffi points out that the Draft Universal Declaration of Linguistic Rights submitted to UNESCO in 1996 has not been widely accepted or approved by the agency. Regional policies such as the European Charter on Regional and Minority Languages which was adopted in 1992 has fared better since it has been signed by a number of European countries. .

It is therefore crucial that the language policy in the country be re-aligned with a view to promoting indigenous languages among the Indigenous Peoples. The promotion of an environment that is conducive to the survival and promotion of indigenous languages is a key part of furthering the interests of biological diversity and ultimately the protection of indigenous systems of knowledge that are carried through these languages. There must be sufficient attention from both the national authorities and international agencies. In addition, funding bodies can do more to promote revitalisation projects at the local community level³¹⁸.

When the languages are valued and respected, this enhances the status and position of IKS generally. The example of the enhancement of languages in New Zealand is quite indicative of the importance of wide-ranging projects in the quest to protect IKS. The reclamation of languages is part of the broader project of restoring and protecting IKS.

10.6.3 REGENERATION OF INDIGENOUS PLANTS

It is vital to counter deforestation, which as field research has shown is one of the major threats to the survival of IMK systems. The implementation of reforestation programmes

³¹⁸ Already there are some efforts to promote the revitalisation of indigenous languages. This has been demonstrated by such international organisations such as *Terralingua*: Partnerships for Linguistic and Biological Diversity. It was formed for the purpose of promoting linguistic and cultural diversity and supporting the links between linguistic and biological diversity. The strength in the diversity of languages has been replaced by arguments for the strength and unity provided by using the dominant languages (Maffi 2002).

of known indigenous plants would be a solution to this problem. The state could assist by providing logistical and financial support.

In addition the state can provide incentives so that the Indigenous Peoples can cultivate these plants instead of the exotic varieties that have been encouraged and grown for commercial purposes. The present research data already indicates the types of plants of medicinal value and the National Herbarium has been cultivating species at the National Botanical Gardens. However, it is necessary to improve the cultivation *in situ* so that people can easily access the plants when needed. Some of the financial resources from the exploitation of medicinal knowledge and plants must be ploughed back into the re-cultivation of these plants.

Ultimately the greatest incentive to the protection of biological diversity is the protection of IMK systems and ensuring that the benefits of the use of the plants accrue to the local communities. The CBD (1992) encourages this and Zimbabwe must put this into practice to ensure that communities benefit and have the willingness to save the species. Those medicinal plants that are already known and published can be saved from potential extinction by cultivating them on a greater scale. This should also sustain the knowledge of the local people.

10.6.4 POLITICAL WILL

There is evidence to suggest that the international movement towards the protection of Indigenous Peoples and their assets has gathered more pace and significance in the previous twenty years. As such according to Posey and Dutfield (1996), there are many existing tools that can be mobilised in order to defend the rights of Indigenous Peoples within the international legal framework. However, while there have been some advances in Latin America, Asia-Pacific regions there has been slower pace in Africa. The major impediment to change is lack of political will to implement the measures in the available instruments. There is still hostile treatment of some indigenous groups in places such as Botswana and Namibia where the indigenous San tribal communities are being relocated by the state in the name of modernism against their will.

Thus there has been no translation of these conventions and declarations into national policy or actual action on the ground. What is needed is the will on the part of those who wield state power to take action and implement the recommendations that have been advanced in international conventions and academic publications. The implementation of these programmes requires an appreciation on the part of the power holders so that they can secure and uplift the position of the local people. Despite the government of Zimbabwe showing some interest in indigenous medicine, it has failed to translate rhetoric into practical programmes. That explains why the efforts by organisations of IMPs such as ZINATHA to establish schools of indigenous medicine, develop pharmacies and engage in collaborative research have largely failed in the past.

10.7 CONCLUSION

In a nutshell this study has established the thesis that IMK systems are vulnerable because they have been marginalised in favour of the WSK systems and that it is necessary to transform both the legal and non-legal structures in order to effectively protect Indigenous Peoples' rights. The primary focus should be on recognising the validity and legitimacy of IMK systems and assessing the needs and conditions of the local people. The debate over whether or not IP law can be used is a secondary issue since IP law is only one among a number of possible mechanisms which if properly and comprehensively researched and formulated can play a key role in the process. It should be recognised that while changes to the legal architecture are important there is a wider area that needs to be overhauled. The current legal debate is necessary but falls short because it fails to take into account the non-legal structures under which IMK systems have been undermined during the course of history. This study has established the importance of history in the understanding of the problems of IMK systems and its role in the formulation of new policies for knowledge protection.

The protection of IMK is not simply a legal matter but an economic and socio-political issue that calls for change in attitudes and ways in which people view and respect the system and indigenous communities. The challenge of changing perceptions and attitudes is huge task given the amount of literature and laws that disparage IMK systems. When IMK is recognised as a legitimate and valid body of knowledge then it will be necessary to create a protection mechanism that is consonant with the needs, practices and desires

of the people who require its protection. The challenge is to manage the contacts between the knowledge systems in order to ensure that the benefits of research are shared between concerned parties in a fair and equitable manner. It also requires that the research process itself is conducted on a more ethical basis than has been the case so far.

Clearly, it is a process that requires time, patience and greater political will. The solution is not to isolate IMK systems but to manage their interaction with the other knowledge systems so that rights of concerned parties can be protected and sustained. The contacts between knowledge systems have been taking place for a long time such that isolation cannot be the answer because practically it is not achievable given the historical and current developments. It is important, in this process, to avoid idealistic conceptions of IMK systems but to take into account, the current and actual realities and respond to them in a holistic manner. Legal instruments are necessary but beyond that is the need to reconstruct the social environment in which the IMK systems exist.

These measures may prove to be useful in resolving the struggles that have been highlighted and discussed in this study. The multiple nature of knowledge must be recognised and accepted. As the *Shona* saying goes, *Zano Marairanwa*, which means that ideas are not created by one person but are the collective creation of many people. The story of the creation of knowledge is not that of the lion alone, but of all animals.

APPENDIX 1

Letter to ZINATHA

Zimbabwe National Traditional Healers Association (ZINATHA)
Red Cross House
Chinhoyi Street
Harare

25 November 2000

Dear Sir/Madam

Re: RESEARCH ON THE PROTECTION OF INDIGENOUS MEDICINE IN
ZIMBABWE

I am writing to seek your assistance in a field research project that I intend to conduct in respect of the above subject. I realise that ZINATHA represents a wide cross section of the stakeholders in the area of indigenous medicine hence I am addressing this request through your office as the President of the Association.

The subject of my research is as follows:

In some parts of the world there has been great interest in the area of indigenous medicine. There also seems to be controversy over key issues such as ownership of the knowledge, access and benefit sharing between the owners and users as well as the propriety of methods that are used in the extraction and application of the knowledge. My view is that this area has not been explored in any great detail in Zimbabwe. There are works in anthropology and history but there seems to be very little studies that have been undertaken from a legal perspective. These are issues that I wish to explore as part of my study with a view to informing academic scholarship and hopefully policy-makers on the proper ways of dealing with potential and existing problems in this area.

I wish to state that my research is entirely for academic purposes. I am currently registered at the University of Warwick in the United Kingdom as a PhD student. The results of my research are to be used primarily for the completion of my thesis. I chose to focus on Zimbabwe since it is my country of birth and having grown up in the country I realise that there is potential for wealth in traditional knowledge systems which awaits further exploration. I am not seeking knowledge of the actual medical techniques or medicinal materials that are used by indigenous practitioners in their work. Indeed the propriety of the methods of pursuit of such knowledge by researchers is at the heart of my enquiries. I am interested in understanding the mechanisms that are used in traditional communities to protect their knowledge, the views and attitudes of the local communities to the pursuit of knowledge in their communities, the use of biological materials and their views on the existing mechanisms of protecting inventions and creations.

It is my hope that this research will bring to the fore, key issues that concern indigenous communities in relation to their knowledge and hopefully assist in how the problems can be resolved. In order to accomplish this, the views and knowledge of the people are necessary and ought to be explored and highlighted. This, in short is the crux of my project.

I hope you will look at my request kindly and grant me the approval to approach your organisation and members in order to conduct this research more effectively. I believe that your informed consent is necessary whenever one wishes to undertake a project of this nature and that is why I have sought your permission and help. I also undertake to inform you of the outcome of my research upon completion of my studies and I will acknowledge your assistance in this project.

Thank you.

Yours Faithfully

Alex Tawanda Magaisa

APPENDIX 2

Reporting Back to ZINATHA

Zimbabwe National Traditional Healers Association (ZINATHA)
Red Cross House
Chinhoyi Street
Harare

Dear Sir

It is my pleasure to write to you at this time. I wish to inform you that I have now completed my research and have compiled my results. At present I am doing my assessment and preparing my thesis for submission. I am attaching a preliminary draft of my findings that will form a chapter in my final study.

As I indicated when I approached your organisation, this is an entirely academic research project in pursuance of my PhD degree in Law. I reassure you that the information that I gathered will only be used for academic purposes and hopefully assist in enlightening issues concerning indigenous communities in Zimbabwe particularly with regards to the use of their traditional knowledge which is part of their heritage.

I wish to take this opportunity to thank you for assisting me to do this project. I shall be grateful if you could also pass my sincere gratitude to all the people that I was able to meet and interview through your offices. Their information has been very helpful. I felt welcome at their homes and villages and there is no better way to thank them for their warmth and assistance.

I learnt with great sadness, of the passing away of Sekuru Sibanda who was my point man during the process. He was always ready to give me interviews and refer me to other practitioners, which was quite useful. He was a great man who did so much to help the cause of traditional medicine in Zimbabwe and his loss will be greatly felt. I assure you that when everything is completed I shall inform you again of the outcome of this process. In the event that this work is published in future, I shall also inform you and will acknowledge the assistance that I received from you and various other members. Thank you for your help.

Yours Sincerely

Alex Tawanda

APPENDIX 3

A PERSONAL JOURNEY: *STORIES FROM A CHILDHOOD*

My memory of my most direct encounter with indigenous medicine was in 1985 when as a small boy of 10 years I was treated by a local man to remove some growths that had developed on my left knee for about two years. Although they were not painful the growths were quite an irritation. I had gone to the local clinic where they gave me some medicine to smear on the growths to no avail. Every time I went to school I would make sure to pull up my socks to cover the knees which the school authorities did not approve. Curious friends and schoolmates would look and ask me about them. I had no answers, felt embarrassed and I was losing confidence.

Then one day an uncle visited our home. He observed me and called me to his side. He took a long look at the small growths and advised my mother that these could be easily removed. He went to the bush near our home and took me to a small anthill where a few plants had mushroomed. One of them was a plant called a *Gavakava*, which when pricked produces a milky substance. He took a razor blade and made incisions on the growths and smeared the substance on the incisions. He instructed me to take a piece of the fresh plant and smear the juice everyday for about two weeks. Determined to remove the growths I followed his instructions carefully. During the next three weeks the growths started peeling off and after a month my knee was smooth and clean. The growths had disappeared. When I look at my leg today, all I can see are faint scars reminding me of those old irritations. I am twenty-eight now and I have never had a recurrence of the problem. I never fully appreciated the power of the knowledge that this man had used to help me at the time. It was just the way things were and nothing special.

However, upon embarking on this project I have looked back to that time and realise that what i was researching was nothing new to me. It is something that I have lived with and experienced from childhood. It is the kind of knowledge that this poor, illiterate man had used to help me for no charge at all that is at the centre of this study. During my fieldwork, I was to meet the man again - now an old and frail man, but now I appreciate, as do many scientists and researchers, that the wealth of knowledge that this man holds has become a key part of medical research.

Growing up in rural Zimbabwe, I recall many occasions and stories about traditional culture and the use of medicine in local communities. Observation was always very important. We lived with nature, interpreted and lived off it. The sight of the *Chapungu* bird flying over one's homestead was a sign of good fortune. The sight of squirrel crossing one's path back and forth was signal that some misfortune lay ahead and if you were travelling you would have to reconsider. On one occasion when two older boys reported that they had seen two snakes fighting an elder told them to go back and observe

what the other the other snake would do if the other was bitten. It was important they said, because usually the other snake would eventually look for the herb to nurse the other one. The idea was that when you observe them using a certain herb, then one would also know that the plant contains active ingredients for the treatment of snakebites. And that too could be useful for human kind.

Babies were born under the watchful, caring eyes of the village midwives. They administered the medicine to mother and baby. We saw them as infants and as they grew into boys and girls. Mothers took them to hospital for the injections but whenever it was necessary the local elders prescribed drugs using local herbs and plants. For the odd cough or cold, we took leaves of the local plants, crushed them, mixed with warm water and swallowed to our good health. The leaves and roots of a particular shrub when crushed and mixed with water were useful to stop a running stomach. The twigs of another tree were used as toothbrushes. The fruit of the *Mutohwe* tree were natural sweets that we chewed to clean teeth and freshen the mouth. When we were out walking long distances and felt hungry, people chewed the inner bark of certain trees that produced juice that was soothing and kept hunger at bay. The leaves of a certain shrub were good substitutes for tea. People went to the clinic but they always used the local herbal remedies in many cases. Each year traditional ceremonies were held to thank the ancestors. At those ceremonies the spirit mediums communicated with the ancestors.

There was close interaction between people's lives and Nature. Nature served us and we had systems to protect it. The customs and codes that brought together Nature and humans ensured that there was a symbiotic relationship. This link can be noticed in the stories told to children as they grew up. We would sit around a fire each evening and listen to the stories from the elders. Those stories used symbols from the natural world and they make up an important part of the oral literature that is a significant element of local knowledge systems. The animals like the hare, baboon, tortoise, lion, elephant, etc featured prominently in the folk stories that enriched our perspectives of the world. Even today, I still hear echoes of the voices of the hare, the baboon, etc for in these stories these animals were depicted as having human characteristics – they could talk, dance, work and do all kinds of things that humans do. With hindsight, I realise how this was meant to enhance the image of animals in the eyes of the children as we grew up.

The systems of plant protection were in place. That is where we and our domestic animals found food medication and life. The *taboo* system worked equally well. We knew that certain trees were not to be cut and we knew that certain birds, animals were sacred and were to be preserved. I remember one code that if a certain tree were cut, tragedy would befall your family. Nobody dared cut that type of tree. Later I was to learn that elders found much medicinal remedies from that type of tree. There were places in the mountains and forests that were sacred and we were warned not to make disrespectful utterances or venture there unnecessarily. Indeed there were stories of people who got lost in the sacred forests after doing disrespectful things and they were only found after certain rituals with the traditional leaders were performed.

Now, many years later while doing my fieldwork for this study I returned to the village and found men clearing a field for one of the young men who had recently married and was setting up a home. Conspicuous among all the debris and fallen trees was a small thorny plant that had obviously been spared the axe. I wondered why such a seemingly useless small tree had been spared. Curious to know, I asked why that thorny plant had been spared the wrath of the axe. An old man took me aside and whispered into my ear, "That plant is very important young man. Its roots, my son, will be useful to you as a man one-day when you grow old like me. And also when you have pain in your stomach, you will find the juice from those small leaves very useful too."

At that moment I knew why the small thorny tree was so special and why the men in the village had been so careful to spare its life. As the old man said, "it keeps us going my boy... It makes us young men again"³¹⁹. As two young women passed by, the old man looked at them and then at me and expressed a naughty smile. His eyes said it all – you could not rule him out on account of age! That is why when all the trees and shrubs had fallen, that small one with thorns was the only one left standing.

These recollections of earlier times might give an impression that these things have been abandoned. However, the reality is that as the modern way of life becomes more expensive and out of reach for many, people have tended to rely more on the traditional remedies available in the local environment³²⁰. The observations that people make, which date back to time immemorial, have helped them to master and collect knowledge from nature. As a consequence there exists a huge store of medicinal knowledge in the local communities.

This is the subject of this study. To me, it is not a distant subject that I am encountering for the first time. It is not something that I am trying to know whether or not it exists. It is a phenomenon that I have met from a very early age. Although I have travelled away from that world and consequently lost some of the finer bonds, it is something that I have experienced and has remained with me. I thus entered the field with a background that is grounded within the traditional systems - as an insider because of this experience but also as an outsider because of my removal from the scene over the years. When I set out to do this project and to do my field research, it was a continuation of a story that had begun from my childhood. The research I did during those few months served to compliment the lived experiences that I have gone through and not to discover a "new world"

³¹⁹ I was told that its roots contained elements that were used to make an aphrodisiac.

³²⁰ According to Chigodo, "The high cost of treatment and increased illnesses following the advent of the AIDS pandemic is forcing many Zimbabweans to seek the services of traditional healers." African Church Information Service 13 October 2003 (Copy held on file).

APPENDIX 4

LIST OF INTERVIEWEES AND DATES OF INTERVIEWS

1. Professor Gordon Chavunduka 25/07/01 and 30/04/2002
2. Professor Gundidza 5/08/01
3. Professor Benhura 7/08/01
4. Dr Ndlovu 25/08/01
5. Professor A. Mlambo 22/04/02
6. Dr Niang-Sithole 8/09/01
7. Ms Caroline Moyo-Ncube 24/07/01
8. Dr Mabrouk of ARIPO 20/06/01
9. Dr Pius Nyambara.....20/04/01
10. Mr Andrew Mushita 28/04/01 and 22/04/02
11. Sekuru Peter Sibanda (interviewed on several occasions throughout the period as he was the main contact person at ZINATHA)
12. Mbuya Makwinja 5/07/01
13. Mr Munyoro 23/04/01
14. Sekuru Chikomo 3/07/01
15. Sekuru Kwenda 15/07/01
16. Mr Mhlanga 18/07/01
17. Mr Mushipe 13/07/01
18. Sekuru Jambaya 20/08/01
19. Mr Mabrook 2/09/01
20. Mr Peter Lloyd 28/05/02
21. Mr Mafa 23/08/01
22. Mr Muzvondiwa 27/05/02
23. Mr Chitongo 22/05/02
24. Sekuru Gwindi 23/08/01
25. Mbuya Chikomo 3/07/01
26. Mr Muchengetwa 18/01/02
27. M Murombo 18/01/02
28. Mrs Sarah Mangundla 26/08/01
29. Mr Mavi 28/08/01
30. Mrs Chando 20/05/02
31. Dr Mashava 5/09/01
32. Mr Chirume 15/06/02
33. Mr Kanda 20/05/02
34. Sekuru Madzvimbo 23/07/01
35. Sekuru Masanganise 8/07/01
36. Mbuya Jakwara 27/07/01
37. Mr Marufu 15/07/01
38. Sekuru Matate 13/05/02
39. Ms Chikauro 19/05/01

40. Ms Tafadzwa Mupfawa	23/08/01
41. Mrs Cynthia Zengeni	28/04/01
42. Dr Mapfumo	19/06/02
43. Dr Muchemenyi	20/06/02
44. Mr Mapfumo	30/03/01
45. Mr Kandihero	(several occasions - Administrator of ZINATHA)
46. Mr Hore	3/04/01 and 4/07/01
47. Sekuru Machaka	3/04/01 and 4/07/01
48. Sekuru Maromo	4/04/01 and 5/07/01
49. Mr Mangwiro	15/05/02
50. Ambuya Gwara	16/05/02
51. Dr Mashava	28/04/04

I also interviewed officials in the Ministry of Environment and Tourism, Ministry of Health and Child Welfare and the Office of Patents & Trade Marks. However, government officials wished to remain anonymous.

Also attended a workshop on Biotechnology in Zimbabwe where I presented a paper on the 23rd August 2001 (Jameson Hotel, Harare). At this meeting various issues connected with the research were discussed both formally and informally with delegates.

In the villages that I visited across *Chikomba* and *Wedza* districts, I held discussions with various people in informal groups. Villagers often came together to discuss issues in connection with the subject of research. Those cited are the key persons that the researcher met but over and above there are many people who contributed to the information that was gathered.

I also talked to people (both buyers and sellers of traditional medicine) at the markets in Harare, *Wedza* and *Marondera*

PLACES VISITED

1. National Botanical Gardens, Harare
2. National Museum, Bulawayo
3. National Archives, Harare
4. Mbare Musika, Harare
5. Mupedzanhamo Market, Harare
6. Roman Catholic Cathedral, Harare
7. Methodist Church, Harare
8. Sadza District Hospital
9. Wedza District Hospital
10. Parienyatwa General Hospital
11. Harare General Hospital

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